Similarity, Role, and Setting as Determinants of Attraction

Ву

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To Terri

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Abstract of Dissertation Presented to the Graduate Council of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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The purpose of this study was to test the effects of manipulated similarity and role definition on the dependent measure of interpersonal attraction in settings analogous to the social psychology laboratory and to the clinical situation. It was intended that the results of this study would help to clarify the differences between theoretically oriented research and clinically oriented research in the area of interpersonal attraction. Laboratory and field studies that have been done to test hypotheses derived from theoretical social psychology have produced consistent positive results when similarity between people has been the independent variable and interpersonal attraction has been the dependent measure. Conversely, studies which have sought to test the effect of similarity between therapist and client have produced mixed results. The present study isolated several theoretical and methodological differences in these two

bodies of research and then attempted to systematically vary three of these variables while holding others constant.

Two parallel experiments were conducted using a bogus stranger technique. Experiments one and two differed in the subject populations used and in the procedures by which the data were collected. Experiment I used 38 male and 24 female volunteer subjects from the undergraduate subject pool. Experiment II used 10 male and 10 female students who applied for services at a university counseling center and who volunteered to participate as subjects. Experiment I was conducted in a classroom building, while experiment II was conducted in a university counseling center.

Both experiments were conducted in two parts. In the first part all subjects were given a packet of forms and scales and asked to read them carefully and complete all items. The packet contained the following: an instruction sheet telling subjects that they were participating in a study of interpersonal judgment that was trying to gain information about how people make judgments about one another based on a limited amount of information, a copy of the Allport-Vernon-Lindsey Study of Values (AVL), a copy of the Self-Others Questionnaire (Berger, 1952), and two seven-item Likert-type scales asking subjects to estimate their attraction toward an unknown peer and an unknown psychotherapist. Subjects' rating tendencies and self-esteem were tested and did not differ significantly within each subject sample.

In the second part of both experiments subjects were asked to rate the amount of attraction that they felt for a bogus stranger. The experimenter made up copies of the <u>AVL</u> that either agreed on 80 percent of the items or disagreed on 80 percent of the items. Subjects in the

friendship condition were told that the bogus <u>AVL</u> had been filled out by a peer, while subjects in the therapy condition were told that it had been filled out by a practicing psychotherapist. The Interpersonal Judgment Scale (<u>IJS</u>) (Byrne, 1961) was used as the dependent measure. Items 5 and 6 of the <u>IJS</u> were summed to create one attraction scale with a 12-point range.

Results of both experiments were tested in a 2 x 2 factorial ANOVA design. Results of this test for experiment I were that a significant main effect for similarity was found (p < .001) with no significance for role or for role by similarity interaction. The same test in experiment II (client subjects) resulted in significance for role (p < .05), similarity (p < .001), and role by similarity interaction (p < .01).

On the basis of these results it was concluded that traditional social psychology theory is accurate when applied to the nonclient sample used in experiment I of this study. It was also concluded that further research would need to be done before the findings of laboratory and field studies of interpersonal attraction could be extrapolated for use in the clinical setting.

CHAPTER I

INTRODUCTION

The effect of similarity between people on a number of interpersonal processes has been the focus of theoretical and research work in both social psychology and therapeutic psychology. In social psychological research, similarity between people has been shown to be consistently positively correlated with interpersonal attraction (Newcomb, 1961) and as an independent variable in experimental research has also been found to produce reliable effects on interpersonal attraction (Byrne, 1971). Conversely, in therapeutic settings, similarity between people has produced more equivocal results than in the social psychology laboratory and in some studies has produced consistent negative findings (Goldstein, 1971). The present research was undertaken to compare the effect of similarity between people on their subsequent attraction for one another in settings which would be analogous to the social psychology laboratory and to the therapeutic setting.

GENERAL BACKGROUND

The effect of similarity between people on their subsequent attraction for each other has been the focus of research done to test hypotheses derived from three different theoretical orientations.

Heider (1958) and Newcomb (1961) offered explanations for the similarity-attraction relationship based on cognitive balance. Byrne (1961, 1969) postulated reinforcement as a mediator of the effects of agreeing or disagreeing attitude statements attributed to a stranger on the subjects' expressed attraction for the stranger. Goldstein (1971) proposed that the role-specific requirements of the therapeutic situation may determine the effect of similarity between therapist and client. Although numerous studies have been done to test hypotheses derived from each one of these theoretical approaches, the present author is not aware of any studies which have tested predictions made from all three theories in the same study.

The cognitive balance hypothesis

Early attempts to explain the consistent positive relationship / found when similarity between people and the amount of attraction which those people had for one another were correlated were made by theorists working within a cognitive consistency (cognitive balance) framework. Both Newcomb's A-B-X theory (1961) and Heider's P-O-X theory (1958) postulate that in a relationship consisting of three elements the amount of attraction in the relationship is dependent on the amount of balance among these three elements. The following example of Newcomb's formulation will clarify the balance-theory predictions.

 \underline{A} symbolizes one person. \underline{B} symbolizes another person who is in relationship to \underline{A} . \underline{X} symbolizes a third person or object that has a relationship to both \underline{A} and \underline{B} . The theory postulates that if \underline{A} and \underline{B} are in agreement about \underline{X} then the relationship between \underline{A} and \underline{B} will be positive. If \underline{A} and \underline{B} are not in agreement about \underline{X} , then \underline{A} has three options.

He may decrease the importance of \underline{X} so that the difference in feelings is not important enough to influence his feelings about \underline{B} . \underline{A} may also change his attitudes so that they are in agreement with \underline{B} 's and thus restore balance. The third way in which \underline{A} may restore balance to the relationship is to dislike \underline{B} .

Newcomb (1961) tested balance theory in an extensive correlational study of the role of attitude similarity in the formation of friendship relationships. He found correlations of .53 and .56 between attitude similarity (measured prior to acquaintance) and attraction between pairs of subjects following acquaintance with each other. Newcomb concludes that those people with similar attitudes select each other as friendship partners because there is a greater probability of a balanced relationship occurring with a similar other than with a dissimilar other. Curry (1970) in a replication and extension of Newcomb's (1961) research also found support for a balance explanation of the similarity-attraction relationship.

The reinforcement hypothesis

Byrne (1961) offered a reinforcement explanation for the relationship between similarity between people and their attraction for each other. Using an experimental paradigm based on the manipulation of the attitude similarity between the subjects and a bogus stranger, Byrne demonstrated that agreeing attitude statements acted as positive reinforcers. In one of his theoretical papers, Byrne (1969) reviews research findings and presents his reinforcement theory which states that interpersonal attraction is a positive linear function of the proportion of agreeing attitude statements to disagreeing attitude

statements that a subject receives. The continued research support that the reinforcement hypothesis has received has 1cd Byrne (1971) to conclude that similarity and attraction form a "ubiquitous" relationship.

The clinical hypothesis

The effect of attitude similarity on the therapeutic relationship has been the focus of three studies reported by Goldstein (1971). He used a model that closely parallels that used by Byrne in order to bogusly manipulate the client's beliefs about the counselor's attitudes. The procedure involves asking clients to fill out an attitude scale and then following the same faking manipulation employed by Byrne so that the clients saw a high agreement or low agreement scale purportedly filled out by the counselor that they were going to see. However, the dependent measure in Goldstein's studies was taken after the counselor and client have interacted. Based on the three studies in which therapist-client attitude similarity was manipulated and in which no significant effect for similarity-dissimilarity on attraction was found, Goldstein makes the following conclusions.

In this investigation, as well as the two reported earlier in which client and counselor actually met and interacted, no effect of attitude similarity on interpersonal attraction was obtained. This failure is in clear and marked contrast to the consistent findings in the laboratory and field studies from which we are extrapolating here. Perhaps a clue to this discrepancy of result lies in the disparate nature of the goals of the dyadic relationships involved in the laboratory and field studies as compared to our psychotherapy investigations. In a great many of the relevant social-psychological studies, the effects of attitude similarity on attraction have been investigated with regard to friendship relationships. The ideally equalitarian nature of such relationships as well as types

of activities in which friends might ideally engage make quite logical the notion that the greater the between-friend attitude similarity the more mutually satisfying the friendship. In friendship relationships, in short, attitude similarity is very likely facilitative -- and, therefore, attraction enhancing.

A rather different set of conditions prevails in a psychotherapeutic context. A help-seeker wishes assistance from a help-giver. The help-seeker's motivation may be such that he comes for assistance at least in part because there exist important aspects of his current functioning, self-concept, and view of the world that he rejects, and wishes modified. Such an individual, upon learning that the help-giver shares some of the very views that he, the help-seeker, wishes to modify, may develop a view of the help-giver that involves less, and not greater attraction. In such an instance, in brief, attitude similarity may be unfacilitative -- and, therefore, not attraction-enhancing. Such a notion is, of course, largely speculative. Our considerations at the beginning of the chapter suggest that one must get beyond gross dimensions of similarity or dissimilarity, and make quite specific differential predictions such that similarity on some dimensions, but dissimilarity on others will be attraction-enhancing. On yet other dimensions, neither similarity or dissimilarity may be relevant to attraction enhancement. At least with regard to similarity or dissimilarity on the authoritarianism and alcohol-relevant dimensions of our own investigations, we have no evidence that either is relevant to attraction enhancement. (Goldstein, 1971, pp. 134-135)

The absence of similarity-attraction effects in the clinical situation was also reported by Carson and Llewellyn (1966) and by Wiener (1970). Thus, it appears that the findings of clinical research are in direct conflict with those of laboratory and field studies in social psychology.

STATEMENT OF THE PROBLEM

Why does similarity between people produce consistent results in laboratory studies using nonclient subjects and inconsistent results in therapeutic psychology studies using clients as subjects? Does similarity between therapist and client produce attraction as does

similarity between peers? The goal of the present research was to study the effects of manipulated similarity on attraction in a client versus a nonclient population and in the role definitions of peer-friendship versus client-therapy by testing hypotheses derived from theoretical versus clinical positions in situations analogus to the social psychology laboratory and to the therapeutic situation. It was hoped that the resulting findings would aid those who sought to extrapolate from laboratory research to the applied therapeutic setting.

Theoretical (laboratory) predictions

Social psychology laboratory research has been done to test hypotheses derived from two basic theoretical positions which are cognitive balance and reinforcement. What sort of predictions regarding the present research can be made based on balance theory? Applying Newcomb's (1961) A-B-X model to the present situation, the following predictions ensue. If A be operationalized as each subject and B be operationalized as the bogus target person to whom each subject responds, then A's attraction toward B should be predictable by knowing the amount of agreement between A's and B's attitudes toward X. In the present study the X factor was operationalized by having subjects take the Allport-Vernon-Lindsey Study of Values and then asking them to respond to a bogus copy of the same instrument which had been filled out by the experimenter to either agree or disagree with the values expressed by the subjects. Based on balance theory it was predicted that those subjects receiving the high similarity manipulation would be significantly more attracted to

the bogus stranger than those subjects who had received the low similarity manipulation.

The above prediction is based on the assumption that self-esteem is randomly distributed for all subjects. If it is not, then balance predictions would have to be altered to account for systematically differing levels of self-esteem. The resulting predictions would be as follows. If person \underline{A} does not like himself (low self-esteem) and he perceives that person \underline{B} is similar to himself on the basis of knowing that \underline{B} holds similar attitudes toward \underline{X} , then person \underline{A} will not like \underline{B} . On the other hand, if \underline{A} has a favorable attitude about himself (high self-esteem) and perceives that \underline{B} is similar to himself then he will be attracted to \underline{B} . Griffitt's (1966) finding that subjects with low self-esteem were not as much attracted to similar others as were subjects with high self-esteem seems to support this explanation.

Reinforcement theory is based on the notion that agreeing attitude statements take on the properties of positively reinforcing stimuli and so the amount of attraction which occurs in a relationship is dependent on the proportion of positive to negative statements that the subject receives. The generality of this finding has been repeatedly demonstrated (Byrne, 1971). The linear hypothesis also has been shown to be resistant to threat by organismic variables. The prediction derived from reinforcement theory for the present study is that attraction will be a positive linear function of the proportion of agreeing to disagreeing attitude statements received by the subject regardless of the source of the statement.

Clinical predictions

What changes may be expected to occur when one attempts to investigate the effect of similarity between a psychotherapist and his client? Goldstein proposed, after failing to replicate Byrne's findings, that when real clients are seeking someone to help them with emotional problems they may be more attracted to someone who they believe to be different from themselves than to someone who they believe to be similar. In other words, the general principle that those who are similar have a higher probability of being attracted to one another than those who are different may not apply to the role specific relationship of therapist and client.

Operational differences

As well as theoretical differences in social psychology and therapeutic psychology research, there are also some general procedural differences. These will be discussed in terms of the operational differences between Byrne's and Goldstein's research.

The studies reported by Byrne and Goldstein differ in several ways. Byrne's work is typically done in the university setting, while the studies reported by Goldstein were done in a counseling center and a prison. Byrne's research typically uses students as subjects while Goldstein uses clients. These researchers differ also in that the subjects estimate the amount of attraction that they would have for the target person on relationships formed for different reasons. Byrne asks subjects to rate attraction in friendship, while Goldstein assesses therapeutic attraction. Another difference is procedural. In the Byrne

studies subjects are asked to respond to a hypothetical stranger whom they know only through seeing an attitude scale purportedly filled out by the target person, while in Goldstein's studies the subjects are asked to rate therapeutic attraction after they have actually interacted with the target person. The last way in which these two approaches differ is the dependent measure used to measure attraction. In Byrne's studies the Interpersonal Judgment Scale is used, while Goldstein uses the Client Personal Reaction Questionnaire (Goldstein, 1971, p 195), which is a scale that the subject fills out describing his reactions to a real person after relating to him.

HYPOTHESES

The purpose of the present research was to test hypotheses derived from theoretical, laboratory research versus hypotheses derived from clinical research. The basic question under investigation was whether or not the clinical setting and the role definition of therapist-client comprise a special case which does not follow the general principle that those who are similar to each other have a higher probability of being attracted to each other than people who are dissimilar. Two parallel experiments were conducted in order to answer the above question. Experiment I varied amount of manipulated similarity-dissimilarity and role definition factorally in a situation which was analogous to the social psychology laboratory while experiment II varied the same variables in a situation which was analogous to a clinical setting.

Experiment I

It was hypothesized that when amount of similarity (high-low) and role definition (friendship-therapy) were varied factorially using a population of nonclient student volunteers, that the following main effect would result.

A. Based on the consistent findings of research done to test hypotheses derived from reinforcement theory and from balance theory, it was hypothesized that manipulated similarity-dissimilarity would produce a significant main effect.*

Experiment II

It was hypothesized that when amount of similarity (low-high) and role definition (friendship-therapy) were varied factorially in a population of subjects who had applied for counseling that the following main effects and interactions would result.

- A. Based on consistent findings in research done to test the effect of similarity-dissimilarity, it was predicted that a significant main effect for manipulated similarity-dissimilarity would result.
- B. Based on Goldstein's clinical predictions, it was predicted that there would be a significant main effect for role definition.
- C. Based on the contrasting findings between theoretical, laboratory studies and clinical studies, it was predicted that amount of similarity-dissimilarity and role definition would produce a significant interaction.

^{*}The acceptable level of significance was set at .05 for all hypotheses.

Definition of terms

The present study employs several terms that may have multiple or ambiguous meanings. These terms are operationally defined below.

- Balance theory -- This term is used to refer to the theoretical approach used by some psychologists to explain the relationship between similarity between people and their attraction for one another.
 Major proponents of this approach are Heider (1958) and Newcomb (1961).
- Manipulated similarity -- This term is used to refer to the subject's belief that he is similar to another person. This belief is actually effected by an experimental manipulation.
- 3. Similarity-attraction -- This term is used to refer to the area of research which works with the proposition that those people who are similar to one another will have a higher probability of being attracted to one another than those who are different.
- 4. Therapeutic psychology -- This term is used to refer to the applied art and science of helping people psychologically and to the research which is done with the goal of fostering this endeavor.

Organization of the study

In Chapter II research related to the present study will be reviewed. This review will be divided into three parts: (1) research done to test the balance approach to similarity-attraction, (2) research done to test the reinforcement approach to similarity-attraction, and (3) research done to study the role of similarity between therapist and client as a therapeutic variable. Chapter III will present the experimental design developed to test the hypotheses and discuss the limitations of the study. In Chapter IV the results will be presented and discussed. Chapter V will contain the summary and conclusions.

CHAPTER II

REVIEW OF THE LITERATURE

The present study grew out of two basic areas of inquiry. The first was the theoretical and empirical investigation of the effect of similarity between people on their subsequent attraction for each other. The second basic area was the study of similarity between counselor and client as it operates as an independent variable in the therapeutic setting.

Within the area of theoretical and empirical investigation of the similarity-attraction relationship there has been a continual unanswered question about whether cognitive balance theory or reinforcement theory is the most efficacious way of explaining the similarity-attraction relationship. One of the purposes of the present study is to test the conflicting predictions made by these two theories. A background for this test will be developed in the first part of this review.

Another purpose of the present study is to gather more information about how the similarity-attraction relationship operates as an independent variable when the research is specifically focused on the client-counselor role relationship. A background for this inquiry will be presented in the second part of this review.

Studies testing hypotheses derived from cognitive balance theory

Heider first presented his $\underline{P-0-X}$ theory in 1946 and later expanded it in The Psychology of Interpersonal Relations (Heider, 1958). Briefly stated, Heider's theory holds that relationships can be conceptualized as a unit containing one person (\underline{P}) , another person (\underline{O}) , and an object of common interest to both (\underline{X}) . The sentiment relationships within this $\underline{P-0-X}$ unit (attraction) are dependent on the amount of balance within the unit. If all possible relationships are in agreement, then the unit is said to be balanced and the members of the unit are comfortable. If there is disagreement among the members of the unit, then the unit is said to be imbalanced and the members seek to change the situation. The underlying motive postulated by Heider is that people have a tendency toward balance which drives them to seek balanced rather than imbalanced relationships.

A very similar theoretical explanation for the similarityattraction relationship to the one proposed by Heider was first
presented by Newcomb in 1953. The present form of Newcomb's

<u>A-B-X</u> theory was presented in <u>The Acquaintance Process</u> (Newcomb,
1961). Newcomb sees the attraction between the elements of a
unit, which he symbolizes as <u>A-B-X</u> rather than <u>P-Q-X</u>, as
being dependent on the amount of agreement that <u>A</u> and <u>B</u> have about

<u>X</u>. Newcomb also postulates a drive toward symmetry which motivates
people to seek balanced relationships and change unbalanced ones.

Newcomb (1961) conducted an extensive correlational study of the role which attitude similarity plays in friendship formation. He gathered transfer students who had not met before the experiment into a rent-free living situation in return for their consent to serve as subjects. Attraction was measured by having each subject rank order their "favorableness of feeling" for the other members and attitude measures were taken on a wide range of topics. Among the results was the finding that attitude agreement before meeting increased the probability of liking after time for getting acquainted. Correlations between attitude similarity and attraction moved from zero at the beginning of the semester to .53 at the end. These findings offer clear support for the role which attitude similarity plays in friendship formation. Newcomb interpreted these results as supporting a cognitive balance approach by concluding that people choose those with similar attitudes in order to promote balance and avoid unbalanced relationships.

Brewer and Brewer (1968) worked from a balance hypothesis and used 216 subjects who were selected on the basis of extremity and salience of their attitudes toward capital punishment. Subjects were placed into 6 experimental conditions. Expected reinforcement value of the interaction was varied to be high, medium, or low by preinteraction instructions. Agreement was varied by making similar and dissimilar pairs on the basis of attitude pretest. Pairs had a 20-minute discussion of capital punishment and then attraction, the subject's own attitude, and the subject's estimation of his partner's attitude were taken. Results were that attraction was found to be a function of the amount of positive reinforcement received during

the interchange. This finding is in support of Byrne's reinforcement hypothesis (1961). It was also found that the degree of inaccuracy in estimating the partner's attitude was a function of the amount of actual imbalance in the diad which is supportive of a balance approach.

Aronson and Worchel (1966) reasoned that some of the power of the similarity-attraction hypothesis could be explained in that subjects who hold similar attitudes to a target person will believe that they will be liked by the target person more than if they hold dissimilar attitudes. These authors manipulated attitude similarity and perceived liking in a 2 X 2 factorial design and found a significant effect only for liking and did not find any significant effects for attitude similarity or a significant similarity by liking interaction. This finding points to the conclusion that similarity may be overshadowed by the direct communication of liking.

Broxton (1966) tested the role of attitude similarity in interpersonal attraction by measuring self and other perceptions of students who had requested changes in roommates. She derived her hypotheses from Newcomb's balance theory (1961) and predicted that attraction would be based on the amount of agreement between subjects and the target person regarding subject's personality. She found support for this balance approach by comparing the rejected roommate and the chosen roommate on the amount of agreement with the subject regarding the subject's "self." She found that interpersonal attraction is more influenced by perceived agreement than by actual agreement.

Curry and Emerson (1970) replicated Newcomb's study (1961) and found support generally for Newcomb's findings. Curry offers the following interpretation of Newcomb's $\underline{A}-\underline{B}-\underline{X}$ theory.

A-B-X Theory. The core of Newcomb's theory concerns two persons, A and B, and their joint relation to some object, X, as that relation is perceived by one of them. With A as ego, there are three basic variables: (1) A's attraction toward B; (2) A's attitude toward X; (3) A's perception of B's attitude toward X. The object, X, can be any object of human awareness, including A himself, provided that X is somehow relevant to the A-B relation. Given such relevance, there is then a "strain toward symmetry" or balance among the above three variables. A three-variable system is formed in which each variable is a joint function of the other two. For example, if A perceives attitudinal agreement with B concerning X, then the probability of his attraction toward B is increased. Similarly, given attraction toward B, if A perceives B as liking X, then A is subject to strain toward liking X himself. If A likes both B and X, then A is prone to perceive B as liking X also (Curry and Emerson, 1970, p. 217).

Studies testing hypotheses derived from reinforcement theory

The first effort to study the similarity-attraction relationship outside of a balance theory framework was made by Byrne (1961). This study is important not only because it was the first test of a reinforcement appraoch to attitude-similarity, but also because the methodology employed by Byrne has served as a model for numerous other studies done to test hypotheses derived from reinforcement theory. A group of 64 undergraduates were given a 24-item attitude scale. Two weeks later they were told that the scale had been given in conjunction with a study of interpersonal judgment. They were shown scales like the one that they had filled out that had been bogusly filled out by the experimenter to be in high agreement or low agreement with the subject's attitude scale. Each subject was then asked to fill out the

six-item Interpersonal Judgment Scale which assessed four evaluative and two affective dimensions of the subject's expectancies about how he would react if he were to meet the target person who was represented to him by the bogus attitude scale. The dependent measure of attraction was taken as the two affective scales of the Interpersonal Judgment Scale. "As a measure of interpersonal attraction subjects were asked to indicate how well they felt they would like this person and whether they believed they would enjoy working with him (or her) as a partner in an experiment" (Byrne, 1961, p. 714). He found robust support for his hypothesis that attitude similarity produces attraction. Although Byrne did not make a statement of the reinforcement hypothesis as a counterthesis to the balance approach at this time (1961), the seeds were sown for what would later be a major theoretical difference within the area of interpersonal attraction research.

In a study which tested competing hypotheses derived from balance and reinforcement theories, Griffith (1966) used Byrne's (1961) bogus feedback method to determine whether similarity to the subject's real-self or ideal-self was the most influential in producing attraction. He postulated that reinforcement theory would predict more attraction when the target person, who had purportedly completed the scale that the subject was asked to use as a basis of making judgments about another person, was similar to the subject's real-self rather than the subject's ideal-self. In opposition to this, he reasoned that balance theory would predict that the greatest attraction would result when the agreement occurred between the subject's ideal-self and the target person. All subjects took a self-concept inventory and then

were shown a copy of the same instrument which had been faked by the experimenter to make the target person seem to be in high or low agreement on either the real-self or ideal-self. Results were that a significant difference was found between high and low real-self similarity but no corresponding effect for ideal-self similarity occurred. This result is clearly in favor of a reinforcement interpretation.

Byrne (1969) has presented a comprehensive review of literature and a complete statement of the reinforcement position regarding the similarity-dissimilarity relationship. After several studies which clarified the role of social desirability and degree and direction of dissimilarity, Byrne proposed that attraction was a linear function of the proportion of agreeing to disagreeing attitude statements. The effects of topic importance and stimulus modes were also studied and found to be uninfluential when compared with attitude similarity as independent variables affecting attraction. The linear hypothesis was also supported in studies which utilized female clerical workers, children, job corpsmen, and hospital patients. Byrne postulates that agreeing attitude statements serve as conditioned stimuli and that a reinforcement model best accounts for the effect of similarity on attraction.

Gormly and Clore (1969) tested attitude similarity-dissimilarity, dogmatism and extremity of attitude in a factorial design. When the dependent measure was taken with the <u>IJS</u>, they found a significant effect for similarity, a trend which approached significance for dogmatism and no effect for extremity. In a similar study Jackson and Mascaro (1971) tested attitude similarity-dissimilarity and

attitude extremity as independent variables influencing attraction.

They found a significant main effect for similarity and no interaction with extremity.

Mascaro (1970a) followed up on a study by Byrne et. al. (1966) in which the effectance motive was hypothesized to be one explanation for the reinforcing properties of agreeing attitude statements.

Mascaro used error-choice statements projected onto a screen and faked to regulate amount of agreement between the two subjects who thought they were seeing each other's responses. A premeasure and postmeasure of the degree of certainty that the subjects felt about their judgments was also taken. Results showed a significant effect for judgmental similarity on attraction and a nonsignificant trend on degree of certainty. In a follow-up on this study, Mascaro (1970b) used a traditional delayed feedback designed to test the effects of judgmental similarity. He found the expected effects of similarity on attraction and also on the evaluative dimensions of estimation of intelligence and knowledge and no effects on estimations of adjustment or morality.

Ettinger et. al. (1970) studied need for approval and expectancy of being rewarded as determinants of interpersonal attraction. They used scores on the Marlowe-Crown Scale to separate subjects with high need for approval from those with low need for approval. The subjects' expectancy of how much they would be liked by the stranger was measured. Attitude similarity was manipulated in the usual manner (Byrne, 1961). Results were that attitude similarity produced a significant effect but this was correlated with expectancy as subjects

who were more attracted also expected to be liked more (r=.82). Subjects with high Marlow-Crown scores were more attracted to the stranger than those with low scores, but there was no significant correlation between this and expectancy.

LaGaipa and Werner (1971) had subjects rate topics that they thought were relevant to friendship and to complete attitude scales. Later they were given bogus attitude scales of strangers that agreed or disagreed on relevant or irrelevant attitudes, thus creating two levels of similarity and two levels of dissimilarity. Attraction was a function of similarity and was not influenced by relevancy when the dependent measure was the <u>LJS</u>. When subjects were asked what level of friendship they thought they could develop with the stranger, relevancy was a factor in the high similarity condition but not in the low similarity condition.

Lombardo et. al. (1971) reasoned that if attitude similarity did conform to a reinforcement model, it should produce incremental levels of attraction when presented to subjects in incremental magnitudes. They exposed subjects to confederates who presented one, two, or three arguments in favor of the subjects' opinions. The resulting attraction measure was significantly higher for those who received more supporting information.

Byrne et. al. (1971) has also demonstrated the cross cultural generalizability of the attitude similarity-attraction relationship. The research followed the standard format (Byrne, 1961) and used students from Hawaii, India, Japan, Mexico, and Texas. The main effect for similarity was found and no within-culture differences occurred.

The studies reported by Byrne and his associates have all used the <u>IJS</u> as the dependent measure and it has been a reliable means of assessing interpersonal attraction. Although the <u>IJS</u> has obvious face validity and has a split-half reliability of .85 (Byrne and Nelson, 1965), its relationship to behavioral indices of attraction has not been established. In an attempt to add further validity to the <u>IJS</u>, Byrne <u>et. al.</u> (1971a) conducted research to test the relationship of attraction as measured by the <u>IJS</u> to behavioral correlates. This study had confederates and subjects read attitude statements aloud and then take a seat next to or across from the agreeing or disagreeing person. Results were that attraction was a function of agreement and that subjects chose to sit next to or across from an agreeing stranger significantly more than a disagreeing one. There was an interaction of sex and agreement in the seating choice.

Mehrabian and Ksionsky (1971) report two studies which attempted to determine the role of status similarity as well as attitude similarity as they influence attraction. The first study measured subjects' sensitivity to rejection and then manipulated status similarity in the manner that attitude similarity is typically manipulated. They found a significant main effect for status and that those who were sensitive to rejection were more affected by status discrepancy than those who were not. In the second study the expected main effect for attitude similarity was found. It was also found that anxious subjects judged themselves as less socially acceptable than did less anxious subjects. Persons holding attitudes different from the subject's were judged to be more harmful than similar others.

Summary of balance and reinforcement research

Researchers testing hypotheses derived from balance theory and from reinforcement theory have all reported results which are supportive of the theory that they were testing. Studies done to test balance theory have generally been broader and less specific than those done to test reinforcement theory. The statement of balance theory does not lend itself to the derivation of hypotheses with the same exactness as reinforcement theory. Specifically, the \underline{X} term of the \underline{P} - \underline{O} - \underline{X} and the \underline{A} - \underline{B} - \underline{X} formulations have been broadly interpreted to mean any object of any attitude. This makes the theories illusive when one attempts to specifically test hypotheses derived from them.

While balance theory research suffers from lack of specificity, reinforcement theory makes such narrow predictions that its applicability is limited. Research done to test hypotheses derived from reinforcement theory has been more concise and produced more consistent positive results than research done to test hypotheses derived from balance theory.

This difference between generality and specificity which is inherent in the two theories is reflected in the present study. Those hypotheses derived from reinforcement theory are more straightforward than those derived from balance theory. The logical choices which must be made before an hypothesis can be postulated as a test of balance theory are more complex than those necessary to develop a test of reinforcement theory.

The role which similarity-attraction plays in the therapeutic setting has received considerable research attention. The results in this area have not been as consistent as those reported from laboratory studies. These studies will be reviewed in this section.

In an early attempt to study the role that patient-therapist attraction played in therapy outcome, Libo (1957) developed a projective technique which asked patients to tell stories about four picture cards which depict scenes analogous to the therapy situation. Results were that return and nonreturn patients could be separated on the basis of their protocols after the first interview.

Mendelsohn and Geller (1963) also studied the effects of patienttherapist similarity on return rate. They used the Myers-Briggs Type
Indicator to establish the independent variable of similarity between
the patients and therapists in the study. The Myers-Briggs Type
Indicator is a personality inventory which separates people on the
basis of four polarities. These four polarities are JudgmentPerception, Thinking-Feeling, Sensation-Intuition, and ExtraversionIntroversion. Degree of similarity between therapists and their
patients was found to positively influence the number of interviews.
Although there were no positive correlations of individual MyersBriggs Type Indicator scores with the dependent measure, the authors
do show trends by collapsing individual scores into factors. They
conclude that there is more patient attraction for the therapist when
there is agreement in the cognitive-perceptual area.

In a follow-up to his earlier study (1963) Mendelsohn and Geller (1965) used 27-point attitude items to survey attitudes of clients who

had used the counseling center and then factor analyzed the results. Four factors appeared which were then tested with analysis of variance tests to determine whether or not client attitude formation is related to counselor-client matching on the basis of Myers-Briggs Type Indicator scores. Three populations were tested separately and differences emerged between freshmen and upperclassmen. The outcome cluster of duration was linearly related to similarity in all samples. A curvilinear relationship appeared between similarity and the client's evaluation of counseling. In freshmen the comfort-rapport cluster was linearly related to similarity while a curvilinear relationship developed in upperclassmen. This research points out the variability which occurs in similarity-outcome studies that can be attributed to either subject or measurement variables. This study was replicated by Mendelsohn who repeated the correlational study of the effects of client-counselor similarity as estimated with the Myres-Briggs Type Indicator on client return rate. He found overall support for the assumption that similarity leads to longer stay in counseling.

In a study of patient-therapist similarity based on <u>FIRO-B</u> scores Sapolsky (1965) found significant correlations with success of treatment as rated by the therapist's supervisors. He hypothesized that these findings were mediated by the patient's perception of the therapist's caring for them. He tested this by having patients complete three semantic differential scales under differing instructional sets. He found that those who were similar to their therapist on the FIRO-B felt significantly more understood.

Welkowitz et. al. (1967) used the Morris Ways to Live scale and the Strong Vocational Interest Blank administered to patients and therapists to study similarity in patient-therapist values. Convergence of the patient's values with the therapist's was found.

In a study which tested the effects of attitude similarity factorially with sex and the target person's mental health, Novac and Lerner (1968) found that similarity may have a negative effect on attraction. They followed the usual bogus feedback procedure, but presented half of the strangers as emotionally disturbed. They found significant main effects for similarity and for mental health and also a significant similarity by mental health interaction. This reversed effect of similarity on attraction may indicate a general effect caused by the way that the subjects wish to be seen as the purpose of the relationship.

Patton (1969) studied counselor attraction for the client, discrepancy between the counselor's and client's expectations about topics of importance for counseling, and amount of influence in a multivariate design. Attraction was manipulated by having <u>E</u> behave warmly or cooly to the client and influence was measured as the amount of change in the client's rank ordering of topic on the basis of their importance. Influence was found to be dependent on the amount of attraction that the client felt for the counselor and on whether or not the counselor agreed with the client. The results were interpreted as supportive of Newcomb's A-B-X theory. Cook (1966) separated 90 clients into high, medium, and low similarity with their counselors on the basis of Study of Values scores. The dependent variable was change of meaning on semantic differential scales completed on four topics.

No differences were found between groups on "me" and "the ideal student," but a curvilinear relationship did develop in "education" and "my future occupation" with the most change occurring in the medium similarity group. Edwards and Edgerly (1970) employed a similar design to Cook (1966) which used the evaluative dimension of a semantic differential to match counselors and clients. They used change in evaluative meaning and change in the Diamond Adjustment Index as dependent measures. All instruments were administered before and after counseling. Significant differences were found in changes in client meaning on the evaluative semantic differential scales with the most change occurring in the low similarity group. Low similarity diads also showed significantly more change toward congruence. There was no concomitant change on the Diamond Adjustment Index.

Gassner (1970) used a matching technique using FIRO-B scales to match patients with compatible therapists. Therapists saw their similar and dissimilar patients twice a week for twelve weeks.

Measurements of therapist attraction for patient, patient attraction for therapist, and patient behavior change were taken at the end of three and eleven weeks. Results were that high compatibility patients viewed their therapists more favorably than low compatibility matched patients at the end of three and eleven weeks. High compatibility matched therapists were initially more attracted to their patients, but this difference disappeared at the eleven week test. No change was noted for behavioral measures or for change in MMPI scores. The author concludes that attraction may be manipulated but that the effects of high patient-therapist attraction remain to be demonstrated.

In a series of studies which is of importance to the present research, Goldstein (1971) used a procedure similar to the one developed by Byrne (1961) to test the effects of attitude similarity between counselor and client on their subsequent attraction for each other. In the first study clients who applied for counseling at a vocational counseling center were asked to complete a copy of the F Scale. They were then told that their scores had been compared to those of the counselor that they were going to see. The degree of agreement between counselor and client was manipulated by telling the client that his scale had high, medium, or low agreement with one completed by their prospective counselor. After the clients had seen their counselors their attraction toward the counselors was measured. There were no differences between the three similarity-dissimilarity conditions. Goldstein then tried to increase the potency of the similarity-dissimilarity manipulation by having the subjects study an attitude questionnaire purportedly filled out by their prospective counselor. This study also produced nonsignificant results.

Goldstein (1971) then reasoned that the topics of the attitude items used to effect the similarity-dissimilarity manipulation might be of importance in the therapy setting. He tested this hypothesis in an analogue design using alcoholic subjects. Subjects were asked to complete an attitude scale. Later they were shown a scale purportedly filled out by a therapist whom they would hear on tape. They then listened to a tape recording of a therapy session and made judgments about the attractiveness of the therapist doing the recorded therapy session. Results were that no significant effect for similarity-dissimilarity between the subjects and the tape-recorded therapist occurred. A significant effect for topic importance was obtained.

This research led Goldstein to postulate that the similarityattraction relationship may operate differently in the therapy setting than in the laboratory setting and that it may have a different effect in relationships formed for therapy as opposed to those formed for friendship.

Summary of similarity-attraction as a therapeutic psychology variable

Research done to test the role of similarity between counselor and client has been generally supportive of the notion that similarity does influence the therapeutic relationship. Specific information about how this effect occurs is lacking. Some studies report positive findings while others report negative. Some support a linear model for the relationship between counselor-client similarity while others lead toward a curvilinear model. Some studies have reported a consistent lack of findings.

One of the reasons for this diversity of findings of similarity-attraction research done in the therapeutic setting may be the lack of a consistent research approach. Another reason may be the lack of a theoretical base from which hypotheses may be derived. Most research in this area has been empirical rather than theoretical. The present study was designed to test the effectiveness of three theoretical approaches to the study of the role of similarity-attraction on a variable within the therapeutic relationship.

CHAPTER III

PROCEDURES

The present research was conducted to test hypotheses regarding the effect of manipulated similarity between people on their subsequent attraction for each other. These hypotheses were derived from theoretical laboratory research and from therapeutic psychology research. Experiment I, which used nonclient subjects, was done to determine whether or not the role definition under which the hypothetical relationship was formed would interact with the level of manipulated similarity in a situation which was analogous to the social psychology laboratory. Experiment II, which used client subjects, was done to study the effects of role definition and manipulated similarity in a situation that was analogous to the clinical setting. The dependent measure in both experiments was interpersonal attraction.

Since experiment I and experiment II differed only in the subject populations used and in the data collection procedures, they will be discussed as one experiment except as they did differ.

Nonclient subjects (experiment I)

Nonclient subjects were drawn from the undergraduate psychology subject pool at the University of Florida. All subjects were currently enrolled in Psychology 201 or 300 and volunteered to meet research participation requirements. Thirty-eight males and 24 females made up a total N of 62 subjects who served in experiment I, which was billed as a study of "interpersonal judgment."

Client subjects (experiment II)

All students who applied to the University of Florida Counseling Center for personal, vocational, or educational counseling during the period of data collection were asked to be subjects in the present experiment. Each student who comes to the counseling center routinely fills out a personal data sheet at the request of the receptionist. During the period of data collection each client was given a sheet which explained the purpose of the research as being to collect data about interpersonal judgment, assured them of anonymity, and asked them to complete several scales in addition to the routine personal data sheet (see Appendix A, p. 62).

Subject Descriptive Data

Experiment I (Nonclient subjects) Nonclient subjects were placed in one of four experimental groups according to which day they signed up for. The groups were composed as follows: high similarity-friendship: 9 males, 8 females, n = 17; low similarity-friendship: 9 males,

4 females, n=13; low similarity-therapy: 11 males, 4 females, n=15; high similarity-friendship: 9 males, 8 females, n=17; totals: males = 38, females = 24, N=62.

Experiment II (client subjects) Client subjects were recruited as they applied for services at the University of Florida Counseling Center and were randomly assigned to experimental groups by sex. The groups were composed as follows: low attraction-therapy: 2 males, 3 females, n=5; high attraction-friendship: 2 males, 3 females, n=5; high attraction-therapy: 3 males, 2 females, n=5; low attraction-friendship: 2 males, 3 females, n=5; totals: male = 10, female = 10, n=20. Nine males and 3 females refused to participate in the second part of the research.

INSTRUMENTS (Experiments I and II)

Similarity manipulation scale

One of the independent variables of interest in the present study was the amount of similarity-dissimilarity between each subject and a bogus target person. In order to effect this manipulation each subject completed a copy of the Allport-Vernon-Linsey Study of Values. Later a copy of the same instrument which had been completed by the experimenter to have high agreement or low agreement with the instrument completed earlier by the subject was given to the subject, who was told that the instrument had been completed by the person about whom he was to make judgments (see Appendix A, p. 72).

Attraction toward a friend in general

INTELLIGENCE (check one)

In order to determine whether or not there were any baseline differences in subject's ratings of people in general before the administration of the experimental manipulation, a scale was developed to measure this preexperimental rating tendency. Seven Likert-type items were developed which covered the same content areas as the seven items of the <u>IJS</u> (dependent measure). In the <u>IJS</u> a content area is presented, such as intelligence, and the subject is asked to choose among seven statements describing the target person in relation to this content area. For example, the intelligence item of the <u>IJS</u> is as follows.

 I believe intelliger		this	person	is	very much above average in
 I believe	that	this	person	is	above average in intelligence.
 I believe	that	this	person	is	slightly above average in intelligence.
 I believe	that	this	person	is	average in intelligence.
 I believe intelliger		this	person	is	slightly below average in
 I believe	that	this	person	is	below average in intelligence.
 I believe intelliger		this	person	is	very much below average in

In order to obtain a premanipulation estimate of each subject's tendency to rate the intelligence of a person in general a similar item was constructed. Likert-type items were chosen to reduce the effect of repeated measures. The pretest items appeared as follows.

1. Intelligence (check one)

Very much						Very much		
							-	
above average	1	2	3	4	5	6	7	below average

A scale was constructed of seven such items and subjects were asked to respond to them as if they were rating a student of their same age and sex whom they might meet. This Judgment of a Friend In General Scale (JFG) is presented in Appendix A (p. 64).

Attraction toward a psychotherapist in general

One of the major independent variables of interest in the present study was the role definition under which the subjects were asked to respond to the target person. The two levels of this variable were manipulated by asking subjects to respond to a target person who was purportedly a peer and to a target person who was purportedly a psychotherapist. To determine whether there was an initial tendency to judge psychotherapists differently than peers it was necessary to measure subject's premanipulation ratings of a psychotherapist. A Judgment of a Psychotherapist In General Scale (\underline{JTG}) was constructed in the same manner as the \underline{JFG} . The \underline{JTG} was the same as the \underline{JFG} with two exceptions. Subjects taking the \underline{JTG} were asked to make their judgments based on a hypothetical psychotherapist rather than a hypothetical peer. The last item of the \underline{JTG} was altered to make it conform to the condition of getting information about a psychotherapist rather than a peer. The JTG is presented in Appendix A (p.68).

Self-esteem measure

In order to further define the subject population and to enhance the theoretical significance of the study, the subject's self-esteem was measured. A self-attitude scale developed by Berger (1952) and presented by Shaw and Wright (1967) was chosen for the present research. This scale is a 50-item modified Likert type scale. Freshman psychology students were used in the original selection of the items. Split-half reliability of .89 was obtained using five groups of from 18 to 183. A validity coefficient of .89 was obtained by having stories written judged for level of self-esteem. Stutterers (p<.06) and prisoners (p<.01) scored significantly lower then matched normal comparison groups. Shaw and Wright (1967) comment, "This is the most carefully developed scale to measure attitude toward self that we have found in the literature" (p. 433). This self-esteem scale is present in the Appendix (p. 75).

Interpersonal Judgment Scale

The Interpersonal Judgment Scale (IJS) is a six-item scale which presents attributes for judgment and then asks subjects to respond by checking one of the seven choices presented. The choices range from very much agree to very much disagree. The last two items of this scale have been found to be correlated and so are employed as one 14-point scale rather than two seven-point scales (Byrne, 1961). These two attraction items have been shown to have a split-half reliability of .85 (Byrne and Nelson, 1965). Byrne (1971) also demonstrated substantial correlations of these attraction measures with behavioral correlates.

The sixth item of the <u>IJS</u> asks subjects to estimate how much they think they would like to work with the target person in an experiment. This item was not suitable for the therapeutic condition of the present research so an additional general attraction item was substituted. As well as the face validity, which occurred through the wording of the item, an inter-item correlation of .60 resulted when the new item was correlated with the attraction item from the original scale.

Goldstein (1971) hypothesized that those who were seeking help with emotional problems would not prefer to be treated by a therapist who was similar to themselves. In order to specifically test this hypothesis a seventh item was added to the form of the IJS which those in the therapeutic relationship condition received. This item followed the format of the original IJS item which asked subjects to rate how much they thought they would like to work with the target person as a partner in an experiment. The reworded item asked those subjects who had received the therapeutic relationship manipulation to rate how much they thought they would like to have the target person as a therapist. Both forms of the IJS are presented in Appendix A (p. 81).

DESIGN

The independent variables which were manipulated in both experiment I and II were the amount of similarity between the subject and a bogus other and the role definition under which the subjects were asked to make the ratings of attraction which served as the dependent measure. Experiment I was conducted in a classroom and used nonclient subjects,

while experiment II was conducted at the University of Florida Counseling Center and used students who had applied for services there as subjects. As well as the subject and location differences, experiment I and II also differed in the procedure for data collection. The data collection procedures for experiment I and II will be presented separately.

Experiment I (nonclient subjects)

First part. After volunteering to serve, subjects were asked to report to a classroom on two consecutive Mondays, Tuesdays, Wednesdays, or Thursdays. When they arrived they were given a packet of materials which contained an introductory sheet, a copy of the Allbort-Vernon-Lindsey Study of Values (AVL), a copy of the Judgment of a Friend in General Scale (JFG), a copy of the Judgment of a Therapist in General Scale (JTG), a copy of the Self-Others Questionnaire (S-O), and finally a form asking subjects to volunteer for the second part of the experiment. The introductory sheet was always presented first and the volunteer form last; the other forms were presented in randomized orders. Subjects were asked to read the instructions carefully and then to complete each item. Packets were collected as the subjects completed them. The average time for the first part was approximately 50 minutes.

Second part. When subjects returned one week later for the second part, they were given a packet of materials which contained instructions and a bogus form of the AVL appropriate to their condition and a copy of the Interpersonal Judgment Scale. The instructions and bogus form

of the $\underline{\text{AVL}}$ are discussed in the Manipulations section below. All forms, scales, and instructions are presented in Appendix A.

Experiment II (client subjects)

First part. All students who apply for services at the University of Florida Counseling Center are asked routinely by the receptionist to fill out a personal data sheet. During the period of data collection for the present study all students were also given a packet of forms and asked to read them and complete them if they chose to. This packet contained an explanation sheet, one copy of the JFG, one copy of the JTG, one copy of the Self-Others Questionnaire, one copy of the AVL, and a form asking subjects to volunteer for the second part of the research. The explanation sheet (see Appendix A) told subjects that they were being asked to participate in research done to gain information about how people make judgments about other people based on limited information and assured them that their responses would be kept confidential. The order of presentation of the JFG (see Appendix A, p. 66), the JTG (see Appendix A, p. 68), the self-esteem scale (see Appendix A, p. 75), and the attitude scale (see Appendix A, p. 72) was randomly varied. The last form in each packet asked subjects to volunteer for the second part of the research (see Appendix A. p. 78). After the subjects had completed the packet they returned it to the receptionist, who collected the packets and saved them for the experimenter.

Second part. After the subjects had completed all forms and scales of the first part of the research it was necessary to have those who

had volunteered for the second part return for the second part. Those who returned were administered the remaining two experimental manipulations and the dependent measures.

Scheduling. Those subjects who had consented to participate in the second part of the experiment were randomly assigned to the different conditions within their group. They were then contacted by phone and scheduled for the second session. They were scheduled in groups of two or more subjects in the same experimental condition. The subjects who had been recruited from the classroom were scheduled to return to a classroom for the second session.

Manipulations (Experiments I and II)

Similarity-dissimilarity manipulation. The subject's perception of the amount of similarity or dissimilarity between himself and the target person was manipulated by bogusly completing an attitude survey to agree on six of seven items in the high agreement condition or one of seven items in the low agreement condition. This was done before the subjects arrived. The mode of checking, and the choice of items that agreed or disagreed, was varied randomly.

Reason for the relationship manipulation. One of the major hypotheses in the present study was that similarity-dissimilarity would produce different results in relationships formed for friendship than in relationships formed for therapy. This manipulation was accomplished by varying the instructions under which the dependent measure was taken. In the friendship condition subjects were instructed as follows:

One of the things which people often do is to make judgments about others based on limited information. The attitude scale that you have been provided with was completed by one of your classmates of your same age and sexplease study it carefully and then complete the Interpersonal Judgment Scale which has been provided. Try to make your judgments on the basis of how you would find this person if you were to mect him and get to know him.

The instructions to the subjects in the therapeutic relationship condition were as follows:

One of the things which people often do is to make judgments about others based on limited information. The attitude scale with which you have been provided was completed by a practicing psychotherapist of your same sex. Please study it carefully and complete the Interpresonal Judgment Scale which has been provided. Try to make your judgments on the basis of how you would find this person if you had occasion to have him as your own therapist.

<u>Debriefing</u>. After they had completed the dependent measure, all subjects were thoroughly debriefed and the reasons for the experiment and the manipulations were explained. All questions were answered and subjects were asked not to discuss the experiment with anyone.

ANALYSIS OF THE DATA

Testing preexperimental differences

The two independent variables of interest in the present study were high versus low manipulated similarity and the role definition of therapy versus friendship. Before the specific null hypotheses regarding these two independent variables were tested statistically, sources of preexperimental error were examined. Three possible sources of systematic preexperimental error were the subject's baseline tendency to judge peers favorably, subject's baseline tendency to judge psychotherapists favorably or unfavorably, and baseline differences in subject's level of self-esteem. Griffith (1966) has postulated that these variables could influence people's general level of attraction for others. In order to eliminate subject's preexperimental tendencies to rate others favorably or unfavorably and subject's level of self-esteem as possible threats to the interpretation of the results, it was necessary to devise statistical tests that would answer the following questions.

- Are subject's preexperimental tendencies to rate peers and psychotherapists correlated to the extent that they can be treated as one measure of tendency to judge others in general favorably or unfavorably. This question was answered by combining the attraction items (5, 6, and 7) of the <u>JTG</u> and the <u>JFG</u> and then computing a raw score correlation (r) between the resulting sums.
- 2. The second question regarding systematic preexperimental differences which needed to be answered before the null hypotheses could be tested was whether or not there was a difference between the four experimental groups within each experiment. If the correlation described above reached the preset level of significance, then the combined attraction items of the <u>JTG</u> and the <u>JFG</u> would be used to

compute a one way ANOVA between the cell means for each experiment. If the correlation did not reach the preset level of significance then the attraction items of the $\underline{\rm JTG}$ and the $\underline{\rm JFG}$ would be treated separately with one way ANOVA tests. If the ANOVA tests of the subject's pre-experimental rating tendency reached the .10 level of significance, they would be incorporated into the tests of the null hypotheses as covariates.

3. The other source of preexperimental error which needed to be eliminated before the test of the null hypotheses was run was that of subject's level of self-esteem. To determine whether or not any systematic differences existed a one way ANOVA was computed testing the means for each of the four experimental groups within each experiment. If the results of these \underline{F} tests reached the .10 level of significance the scores on the Self-Others Questionnaire would be used as a covariate.

Testing the main effects and interactions

After subject's preexperimental rating and self-esteem differences had been tested and the determination of which measures to incorporate as part of the tests of the null hypotheses, the null hypotheses were tested with 2 x 2 factorial ANOVA tests using two levels of manipulated similarity and two levels of role definition. Null hypotheses will be presented for each experiment.

<u>Hypotheses for experiment I (nonclient subjects)</u>. When high and low manipulated similarity and role definition of therapy or friendship were varied factorially in a nonclient student population, it was

hypothesized that there would be no significant main effect for manipulated similarity.

Hypotheses for experiment II (client subjects). When high and low manipulated similarity and role definition of therapy o friendship were varied factorially in a population of students who had applied for counseling, it was hypothesized that (1) no significant main effect for similarity would result, (2) that no significant main effect for role would result, and (3) that similarity and role would not interact significantly.

LIMITATIONS OF THE STUDY

<u>Subjects</u>. The subjects for the present research were drawn from those students who applied for services at the University of Florida Counseling Center during the period of data collection and from volunteers from the classroom. The results can be generalized beyond these two groups only as similarity between these populations and others may be established.

Instruments. Several of the instruments employed in the present study were developed for this study and so have no reliability or validity beyond the present research.

CHAPTER IV

RESULTS

The present research was conducted to test the effects of high versus low manipulated similarity and of the role definition of therapy versus friendship on the dependent measure of interpersonal attraction. Experiment I varied these variables factorially in a nonclient population while experiment II was parallel except for the use of a client population. This chapter reports the results of statistical analyses testing the null hypotheses of the experiment. Results of preliminary analyses done to statistically evaluate subjects' preexperimental tendencies to rate others positively or negatively and in subjects' level of self-esteem are also reported.

PRELIMINARY ANALYSES

Before testing the experimental hypotheses, three possible sources of preexperimental differences were determined: (1) subject baseline tendency to judge peers positively, (2) subject baseline tendency to judge psychotherapists positively or negatively, and (3) subjects' level of self-esteem. The results of analyses computed to test these preexperimental differences are reported in this section.

Preexperimental baseline rating tendencies

Scores from the Judgment of a Therapist in General Scale (JTG) and from the Judgment of a Friend in General Scale (JFG) were first tested to determine whether or not they could be combined as one estimate of subjects' baseline tendency to rate others in general positively or negatively. The attraction items of these two scales (5+6+7) were summed to produce a total attraction score. This summed attraction score had a range of 18 points (from 3 to 21). Scores for each subject in both experiments were then pooled to produce a total \underline{N} of 94 pairs. A correlation using raw scores was then computed between the summed \underline{JFG} and \underline{JTG} attraction scores. The resulting \underline{r} was .24. This \underline{r} was too low for the combination of the attraction scales of the \underline{JTG} and the \underline{JFG} , so they were treated separately when the tests for systematic preexperimental differences were computed.

The following analysis of variance (ANOVA) tests were computed between the means of the \underline{JFG} and the \underline{JTG} scores for the four experimental groups in experiments I and II. The results of these \underline{F} tests indicated that all \underline{F} ratios were less than 1. On the basis of these consistently insignificant \underline{F} ratios it was decided to discount the subjects' baseline rating tendencies as a source of systematic preexperimental error. The summary tables for the above \underline{F} tests are presented in Appendix B.

Level of self-esteem

The self scale of the Self-Others Questionnaire (S-O) was scored after the procedure developed by its author (Berger, 1952). Each of

the 25 items which make up the self scale have a possible range of one to five giving the scale a range of 100 (25 to 125). Scores for the subjects in the present study were as follows: experiment I (nonclients), $\underline{\mathbf{n}} = 62$, $\overline{\mathbf{X}} = 61.66$, $\underline{\mathbf{SD}} = 14.46$; experiment II (clients), $\underline{\mathbf{n}} = 20$, $\overline{\mathbf{X}} = 72.00$, $\underline{\mathbf{SD}} = 13.85$; Total, $\underline{\mathbf{N}} = 82$, $\overline{\mathbf{X}} = 66.83$, $\underline{\mathbf{SD}} = 14.07$. A one way ANOVA was computed between the means of the S-O scores for experiment I versus experiment II. The resulting $\underline{\mathbf{F}}$ was 8.196 (p < .01, df = 1/81). The summary table for this $\underline{\mathbf{F}}$ test is presented in Appendix B.

In order to determine whether any systematic preexperimental differences in subjects' level of self-esteem existed within each experiment, a one way ANOVA test was calculated for the mean S-O scores for the subjects of each experiment. The results of these tests were as follows: experiment I (nonclient subjects) $\underline{F} = 1.05$, which was nonsignificant (p > .10, df = 3/58); experiment II (client subjects) $\underline{F} = .56$. On the basis of the nonsignificant differences in these two \underline{F} tests, it was concluded that neither the subjects' preexperimental rating tendencies of therapists or peers would exert a systematic influence on the tests of the null hypotheses so both were discounted as possible covariates. The summary tables for the above \underline{F} tests are presented in Appendix B.

RESULTS OF TESTING THE NULL HYPOTHESES

After prerating tendencies and self-esteem had been eliminated as possible sources of variance, the primary null hypotheses regarding the effects of two levels of manipulated similarity-dissimilarity and two levels of role definition on interpersonal attraction were tested.

Two by two factorial ANOVA tests were computed using the combined attraction measure (items 5+6) of the Interpersonal Judgment Scale (<u>IJS</u>). The results of these tests are presented in this section.

The dependent measure

Before items 5 and 6 of the \overline{IJS} could be summed and treated as one measure of attraction, it was necessary to demonstrate that they were in fact measures of the same thing. A correlation using raw scores was computed between items 5 and 6 for all subjects in experiments I and II combined. The resulting \underline{r} was .60, which was significant well above the p < .01 level of significance, with df = 82. This correlation was judged to be sufficient for the combination of items 5 and 6 of the \underline{IJS} . The result of this combination was one scale for attraction with a range of 12 points. Means and standard deviations for all subjects on this attraction scale were computed and were as follows: $\underline{N} = 82$, $\overline{X} = 10.08$, $\underline{SD} = 2.28$.

Experiment I (nonclient subjects)

After prerating tendencies and level of self-esteem had been eliminated as possible sources of variance, and after an interitem correlation sufficient for the summation of items 5 and 6 of the <u>IJS</u> had been demonstrated, a 2 x 2 factorial ANOVA was computed using the combined attraction score of the <u>IJS</u>. Factor A was the role definition under which ratings of attraction were expressed toward a target person known to the subject only through a copy of the Allport-Vernon-Lindsay Scale of Values, which was purportedly filled out by the

target person. Factor A had two levels which were "having as a therapist" and "having as a friend". Factor B was the amount of similarity-dissimilarity in responses to the Allport-Vernon-Lindsey Scale of Values between the subject and the bogus target person. Factor B had two levels which were high (24 of 30 items agreeing) and low (6 of 30 items agreeing). Means, Ns, and standard deviations for the four experimental groups of experiment I are presented in Table 1. A 2 x 2 factorial ANOVA test (unweighted means solution) yielded a significant main effect for similarity-dissimilarity (F = 42.02, df = 1/58, p < .001), but no significant effect of role, and no significant interaction of role and similarity on attraction. The summary table for this F test is presented in Table 2.

Experiment II (client subjects)

The same procedure was followed for testing the means for the four experimental groups of experiment II as for experiment I except that an equal \underline{N} formula was substituted for the unweighted means solution used in experiment I. The same two levels of factor A and factor B were tested in experiment II as had been done in experiment I. Means, \underline{N} s, and standard deviations for the four experimental groups of experiment II are presented in Table 3. The results of a 2 x 2 factorial ANOVA test revealed that the main effect for role was significant (\underline{F} = 7.35, df = 1/16, p < .05); the main effect for similarity-dissimilarity was significant (\underline{F} = 36.56, df = 1/16, p < .001); and the F for role by similarity-dissimilarity interaction

TABLE 1 $\underline{\text{Ns}}\text{, means, and standard deviations for the four}$ experimental groups in experiment I (nonclient subjects)

Group	<u>N</u>	X	SD	
Similar-therapy	17	11.88	1.10	
Dissimilar-therapy	15	8.66	2.31	
Similar-friendship	17	11.52	1.22	
Dissimilar-friendship	13	7.76	2.88	

TABLE 2
2 x 2 ANOVA for similarity versus dissimilarity and therapy versus friendship for experiment I (nonclient subjects)
(unweighted means solution)

Source	df	MS	<u>F</u>
SS _A (role) = 5.73	1	5.73	1.37
SS _B (similarity) = 188.63	1	188.63	45.02***
$SS_{AXB} = 1.24$	1	1.24	less than 1
SS = 243.0 Error	58	4.19	

^{***}p < .00

TABLE 3 $$\underline{\rm Ns}$$, means, and standard deviations for the four experimental groups in experiment II (client subjects)

Group	<u>N</u>	<u>x</u>	SD	
Similar-therapy	5	11.20	1.30	
Dissimilar-therapy	5	10.20	1.09	
Similar-friendship	5	11.80	0.83	
Dissimilar-friendship	5	7.00	1.00	

was significant (\underline{F} = 15.69, df = 1/16, p < .01). Summary tables for these \underline{F} tests are presented in Table 4. Graphs of these results are presented in Figures 1 and 2, which depict the means of the two levels of role within the two levels of similarity-dissimilarity and the two levels of similarity-dissimilarity within role, respectively.

In order to determine which of the means of the four experimental groups of experiment II were significantly different from the others, a Tukey's (HSD) test was computed. Results of this test showed that the dissimilar-friendship group was significantly different from the other three means. The results of this test are presented in Table 5.

 $TABLE\ 4$ $2\ x\ 2\ factorial\ ANOVA\ for\ similarity\ versus\ dissimilarity$ and friendship versus therapy in experiment II (client subjects)

Source	df	MS	<u>F</u>	
SS _A (role) = 8.45	1	8.45	7.35*	
SS _B (similarity) = 42.05	1	42.05	36.56***	
SS _{AXB} = 18.05	1	18.05	15.69**	
SS = 18.4 Error	16	1.15		
SS _{TOT} = 86.95	19			

^{*}p < .05

^{**}p < .01

^{***}p < .001

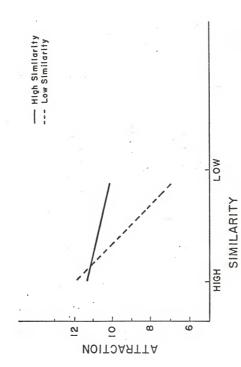


Figure 1. Means of two levels of role within similarity

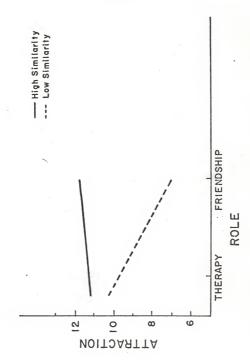


Figure 2. Means of two levels of similarity within role

Results of Tukey's (\underline{HSD}) test of differences between individual means from the four experimental groups of experiment II

TABLE 5

Group	Mean	 Differences			
Similar-friendship	11.80	 0.60	1.60	4.80*	
Similar-therapy	11.20		1.00	4.20*	
Dissimilar-therapy	10.20			3.20**	
Dissimilar-friendship	7.00				

^{*}p < ..05

^{**}p < .01 . . .

CHAPTER V

SUMMARY AND CONCLUSIONS

The results of the two experiments reported in this thesis offer clear support for both the reinforcement and cognitive balance positions regarding the effects of similarity between people on their subsequent attraction for one another. Clinical predictions are also supported, but not as clearly as in the area of theoretically derived predictions. The findings of experiments I and II are discussed in this chapter as they relate to the theoretically derived hypotheses of the two experiments.

SUMMARY

Cognitive balance and reinforcement

Experiment I. The predictions derived from both cognitive balance and reinforcement positions regarding the effects of similarity between people on their subsequent attraction for each other were that those subjects who received the similar manipulation would be significantly more attracted to the target person than those subjects who received the dissimilar manipulation. This prediction was confirmed in the results of both experiments I and II, which both

produced a significant (p < .001) result for the factor of manipulated similarity. In experiment I (nonclient subjects), this effect was the only source of significance with role and role by similarity interaction, both producing nonsignificant \underline{F} ratios. Experiment I was conducted with nonclient subjects and in a setting which parallels typical social psychology laboratory experiments. The significant \underline{F} value (p < .001) with no interaction with competing factors is clearly in keeping with the findings of research reported by Byrne (1969).

Experiment II. A significant effect for similarity-dissimilarity did occur in experiment II (p < .001) but the effects of role (p < .05) and role by similarity interaction (p < .01) were also significant. The significant effect for similarity is supportive of both reinforcement and of cognitive balance positions. The significant effects for role and for role by similarity interaction cannot be accounted for within either one of these theoretical positions. However, it should be pointed out that neither cognitive balance or reinforcement theories speak to the specific situation of attraction in a clinical situation.

The predictions derived from cognitive balance theory were based on the assumption that the subject's level of self-esteem was randomly distributed within the subject population. An \underline{F} test between the means of the samples used for experiments I and II was computed and the result indicated that the means were significantly different (p < .01). ANOVAs were computed to test for differences within the four experimental groups of experiments I and II, and the \underline{F} ratios were non-significant (1.05 and 0.56), supporting the assumption that lavel of self-esteem was randomly distributed within each experiment.

Clinical hypotheses. Goldstein (1971) points out the differences between the laboratory situation and the clinical situation. He postulated that the expectancies about the effects of similarity on attraction which are based on research with nonclient populations in a laboratory setting may not apply to the specific instance of the clinical setting. Experiment II of the present study offered an opportunity to test Goldstein's hypotheses regarding the influence of the role definition under which the subject rates the degree of attraction which he feels for the bogus stranger. Based on Goldstein's (1971) hypotheses, it was predicted that role and similarity-dissimilarity would both produce significant effects and that the interaction between these two variables would be significant. This result was obtained in the present study.

When tested with a Tukey's (HSD) test it was determined that the mean for the dissimilar-friendship group was significantly lower than the means for the other three experimental groups (see page 55). This result is in keeping with predictions that could have been derived from cognitive balance and reinforcement theories as well as Goldstein's clinical theory. Based on cognitive balance and reinforcement theories, it was expected that both of the means for the low similarity groups would have been significantly lower than the means for the high similarity groups. This result did not occur because the mean for the high similarity groups. This failure of the mean of the dissimilar-therapy group accounts for the role by similarity interaction and also lends strong support to Goldstein's clinical hypothesis.

The client subjects of experiment II were given the first part of the research materials when they first applied for counseling. Eleven of the 20 subjects saw a counselor for an "intake interview" after they had completed the first part, but before they had taken the second part. Although the instructions emphasized that the research was absolutely separate from the counseling experience, there is a possibility that the contact with a counselor for an intake interview could have been a confounding factor.

CONCLUSIONS

Experiment I offered strong support for the predictions derived from Byrne's (1969) reinforcement hypothesis. This is evident in that the \underline{F} ratios for similarity-dissimilarity reached the p < .001 level of significance in both experiment I (nonclient subjects) and experiment II (client subjects). Experiment II also supported the notion that similarity is a powerful independent variable when the dependent variable is interpersonal attraction, but the resistance which similarity usually shows when tested against competing variables did not occur. The same results could have been predicted from cognitive balance theory, although cognitive balance research does not typically test similarity against competing variables as does research done to test hypotheses derived from reinforcement theory.

Experiment II is clearly supportive of Goldstein's clinical hypothesis. This is evident in the \underline{F} ratios for role and the interaction of role and similarity were predicted by Goldstein, while the contrary was predicted by reinforcement theory.

On the basis of these results it was concluded that the similarity-attraction hypothesis as it was operationalized in the present study was a powerful independent variable in experiment I, which used non-client subjects and a procedure that was analogous to the social psychology laboratory. On the basis of the results of experiment II, which used client subjects and was conducted in a counseling center, it was concluded that this situation constitutes a special case in which the effects of similarity must be studied more carefully before extrapolation from the social psychology laboratory can be done with confidence. This author must agree with Goldstein who concludes, "... one must get beyond gross dimensions of similarity or dissimilarity and make quite specific differential predictions such that similarity on some dimensions, but dissimilarity on others will be attraction enhancing" (Goldstein, 1971, p. 135).

APPENDIX A

INTERPERSONAL JUDGMENT RESEARCH INFORMATION SHEET (CF)

The following scales are part of a study which is trying to learn about how people make judgments about one another. Since this study is seeking information about how people make judgments about people in general rather than specific people, you will be asked to rate a hypothetical person rather than a real person.

Your participation in this research is completely voluntary. Whether or not you decide to serve as a subject in this study will have no effect on your relationship with your counselor or the services that you will receive at this counseling center. Your responses will be kept confidential as part of this research and will not be revealed to the counseling center staff.

If you agree to participate, please read the instructions carefully and then complete each item.

INTERPERSONAL JUDGMENT RESEARCH INFORMATION SHEET (NF)

The following scales are part of a study which is trying to learn about how people make judgments about one another. Since this study is seeking information about how people make judgments about people in general rather than specific people, you will be asked to rate a hypothetical rather than a real person.

Your participation in this research is completely voluntary. Whether or not you decide to serve as a subject in this study will have no effect on your evaluation in this class. Your responses will be kept confidential as part of this research and will not be revealed to your teacher.

If you do agree to participate, please read the instructions carefully and then complete each item.

Reason for coming to the counseling center

Personal____

Vocational____

JUDGMENT OF A FRIEND IN GENERAL SCALE (CF)

Name____

Age____Sex___

Local phone____

The purpose of this scale is to gain information about how people
make judgments about other people in general. Please think of a
hypothetical person of your same age and sex whom you might meet and
then make judgments on the following scales based on how you think
this hypothetical person would be.
1. Intelligence (check one)
Very much
above average 1 2 3 4 5 6 7 below average
2. Knowledge of current events (check one)
Very much
below average 1 2 3 4 5 6 7 above average
3. Morality (check one)
Extremely Extremely
moral 1 2 3 4 5 6 7 immoral

4. Aujustment (theth one	4.	Adjustment	(check	one
--------------------------	----	------------	--------	-----

Extremely								Extremely
maladjusted	1	2	3	4	5	6	7	adjusted

5. Liking (check one)

Would like								Would dislike
very much	1	2	3	4	5	6	7	very much

6. Social attractiveness (check one)

Very								Very
unattractive	1	2	3	4	5	6	7	attractive

7. Having as a friend (check one)

Very								Very
desirable	1	2	3	4	5	6	7	undesirable

JUDGMENT OF A FRIEND IN GENERAL SCALE (NF)

2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	Name							
The purpose of this scale is to gain information about how people make judgments about other people in general. Please think of a hypothetical person of your same age and sex whom you might meet and make judgments on the following scales based on how you think this hypothetical person would be. 1. Intelligence (check one) Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	Age	Sex_				•		
make judgments about other people in general. Please think of a hypothetical person of your same age and sex whom you might meet and make judgments on the following scales based on how you think this hypothetical person would be. 1. Intelligence (check one) Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	Local phone_							
hypothetical person of your same age and sex whom you might meet and make judgments on the following scales based on how you think this hypothetical person would be. 1. Intelligence (check one) Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	The pur	pose of	this sc	ale is t	o gain i	nforma	tion al	bout how people
make judgments on the following scales based on how you think this hypothetical person would be. 1. Intelligence (check one) Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	make judgmen	ts abou	t other	people i	n genera	1. P1	ease t	hink of a
hypothetical person would be. 1. Intelligence (check one) Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	hypothetical	person	of your	same ag	e and se	x whom	you m	ight meet and
1. Intelligence (check one) Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely Extremely	make judgmen	ts on th	he follo	wing sca	les base	d on h	ow you	think this
Very much Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	hypothetical	person	would b	e.				
Very much Very much above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely								
above average 1 2 3 4 5 6 7 below average 2. Knowledge of current events (check one) Very much	1. Intellig	ence (cl	neck one)				
2. Knowledge of current events (check one) Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	Very much							Very much
Very much Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely Extremely	above averag	e 1	2	3 4	5	6	7	below averag
Very much Very much below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely Extremely	2. Knowledg	e of cu	rrent eve	ents (ch	eck one)			
below average 1 2 3 4 5 6 7 above average 3. Morality (check one) Extremely Extremely	_			-1105 (01	,			Verv much
3. Morality (check one) Extremely Extremely	•	e 1	2	3 4	5	6	7	•
Extremely Extremely	arciag	-						accid average
	3. Morality	(check	one)					
	Extremely	_			_	_		Extremely
moral 1 2 3 4 5 6 7 immoral	moral	1	2	3 4	. 5	6	7	immoral

4.	Adjustment	(check	one)

Extremely								Extremely
maladjusted	1	2	3	4	5	6	7	adjusted

5. Liking (check one)

Would like								Would dislike
very much	1	2	3	4	5	6	7	very much

6. Social attractiveness (check one)

Very								Very
unattractive	1	2	3	4	5	6	7	attractive

7. Having as a friend (check one)

Very								Very
desirable	1	2	3	4	5	6	7	undesirable

JUDGMENT OF A THERAPIST IN GENERAL SCALE (CF)

• •										
Local phoneVocational Educational The purpose of this scale is to gain information about how people										
Educational The purpose of this scale is to gain information about how peopl										
The purpose of this scale is to gain information about how peopl										
• •										
	The purpose of this scale is to gain information about how people									
make judgments about psychotherapists in general. Please think of a										
hypothetical psychotherapist of your same sex whom you might meet and										
then make judgments on the following scales based on how you think										
this hypothetical psychotherapist would be.										
1. Intelligence (check one)										
Very much										
above average 1 2 3 4 5 6 7 below average	е									
2. Knowledge of current events (check one)										
Very much										
below average 1 2 3 4 5 6 7 above average	е									
3. Morality (check one)										
Extremely Extremely										
moral 1 2 3 4 5 6 7 immoral										
·										

-								
Extremely								Extremely
maladjusted	1	2	3	4	5	6	7	adjusted
5. Liking (ch	neck or	ne)						
Would like								Would dislik
very much	1	2	3	4	5	6	7	very much
6. Social att	tracti	veness	(check	one)				
Very								Very
unattractive	1	2	3	4	5	6	7	attractive
7. Having as	a the	rapist	(check	one)				
Verv								Verv

1 2 3 4 5 6 7 undesirable

4. Adjustment (check one)

desirable

JUDGMENT OF A THERAPIST IN GENERAL SCALE (NF)

The purpose of this scale is to gain information about how people make judgments about psychotherapists in general. Please think of a hypothetical psychotherapist of your same sex whom you might meet and

Name

Sex

then make jud	gments	on the	follo	owing s	scales	based	on how	you think
this hypothet	ical ps	sychoth	nerapis	st woul	ld be.			
1. Intelliger	nce (cl	heck or	ne)					
Very much								Very much
above average	1	2	3	4	5	6	7	below average
2. Knowledge	of cur	rrent e	events	(check	one)			
Very much			_					Very much
below average	1	2	3	4	5	6	7	above average
3. Morality	(check	one)						
Extremely		-						Extremely
more 1	1	2	3	4	5	6	7	

4. Adjustment (check one)

Extremely								Extremely
maladjusted	1	2	3	4	5	6	7	adjusted

5. Liking (check one)

Would like								Would dislike
very much	1 .	2	3	4	5	6	7	very much

6. Social attractiveness (check one)

Very								Very
unattractive	1	2	3	4	5	6	7	attractive

7. Having as a therapist (check one)

Very								Very
desirable	1	2	3	4	5	6	7	undesirable

Name	Age	Sex
------	-----	-----

INFORMATION QUESTIONNAIRE

Instructions

A number of statements or questions with two alternative answers are given below. Please answer each and every item according to your personal preferences. <u>Circle the answer</u> that you select as more acceptable to you.

(Some of the alternatives may appear equally attractive or unattractive. Nevertheless, please attempt to choose the alternative that you prefer, and indicate your choice by drawing a circle around your answer.)

- The main object of scientific research should be the discovery of truth rather than its practical applications. (a) yes; (b) no.
- Taking the Bible as a whole, one should regard it from the point of view of its beautiful mythology and literary style rather than as a spiritual revelation. (a) yes; (b) no.
- Which of the following men do you think should be judged as contributing more to the progress of mankind? (a) Aristotle; (b) Abraham Lincoln.
- 4. Assuming that you have sufficient ability, would you prefer to be (a) a banker; (b) a politician?
- Do you think it is justifiable for great artists, such as Beethoven, Wagner and Byron to be selfish and negligent of the feelings of others? (a) yes; (b) no.
- Which of the following branches of study do you expect ultimately will prove more important for mankind? (a) mathematics; (b) theology.
- 7. Which would you consider the more important function of modern leaders? (a) to bring about the accomplishment of practical goals; (b) to encourage followers to take a greater interest in the rights of others.
- When witnessing a gorgeous ceremony (ecclesiastical or academic, induction into office, etc.), are you more impressed: (a) by the color and pageantry of the occasion itself; (b) by the influence and strength of the group.
- Which of these character traits do you consider the more desirable?
 (a) high ideals and reverence;
 (b) unselfishness and sympathy.
- 10. If you were a university professor and had the necessary ability, would you prefer to teach: (a) poetry; (b) chemistry and physics?

- If you should see the following news items with headlines of equal size in your morning paper, which would you read more attentively?
 (a) PROTESTANT LEADERS TO CONSULT ON RECONCILIATION;
 (b) GREAT IMPROVEMENTS IN MARKET CONDITIONS.
- 12. Under circumstances similar to those of Question 11?

 (a) SUPREME COURT RENDERS DECISION; (b) NEW SCIENTIFIC THEORY ANNOINCED.
- 13. When you visit a cathedral are you more impressed by a pervading sense of reverence and worship than by the architectural features and stained glass? (a) yes; (b) no.
- 14. Assuming that you have sufficient leisure time, would you prefer to use it: (a) developing your mastery of a favorite skill; (b) doing volunteer or public service work.
- 15. At an exposition, do you chiefly like to go to the buildings where you can see: (a) new manufactured products; (b) scientific (e.g., chemical) apparatus?
- 16. If you had the opportunity, and if nothing of the kind existed in the community where you live, would you prefer to found: (a) a debating society or forum; (b) a classical orchestra?
- 17. The aim of the churches at the present time should be: (a) to bring out altruistic and charitable tendencies; (b) to encourage spiritual worship and a sense of communion with the highest.
- 18. If you had some time to spend in a waiting room and there were only two magazines to choose from, would you prefer: (a) SCIENTIFIC AGE; (b) ARTS AND DECORATIONS?
- 19. Would you prefer to hear a series of lectures on: (a) the comparative merits of the forms of government in Britain and in the United . States; (b) the comparative development of the great religious faiths?
- 20. Which of the following would you consider the more important function of education? (a) its preparation for practical achievement and financial reward; (b) its preparation for participation in community activities and aiding less fortunate persons.
- Are you more interested in reading accounts of the lives and works of men such as (a) Alexander, Julius Caesar, and Charlemagne;
 (b) Aristotle, Socrates, and Kant?
- Are our modern industrial and scientific developments signs of a greater degree of civilization than those attained by any previous society, the Greeks, for example? (a) yes; (b) no.

- 23. If you were engaged in an industrial organization (and assuming salaries to be equal), would you prefer to work: (a) as a counselor for employees; (b) in an administrative position?
- 24. Given your choice between two books to read, are you more likely to select: (a) THE STORY OF RELIGION IN AMERICA; (b) THE STORY OF INDUSTRY IN AMERICA?
- 25. Would modern society benefit more from (a) more concern for the rights and welfare of citizens; (b) greater knowledge of the fundamental laws of human behavior?
- Suppose you were in a position to help raise standards of living, or to mold public opinion. Would you prefer to influence: (a) standards of living; (b) public opinion?
- Would you prefer to hear a series of popular lectures on: (a) the progress of social service work in your part of the country; (b) contemporary painters?
- 28. All the evidence that has been impartially accumulated goes to show that the universe has evolved to its present state in accordance with natural principles, so that there is no necessity to assume a first cause, cosmic purpose, or God behind it. (a) I agree with this statement; (b) I disagree.
- 29. In a paper, such as the New York Sunday Times, are you more likely to read: (a) the real estate sections and the account of the stock market; (b) the section on picture galleries and exhibitions?
- 30. Would you consider it more important for your child to secure training in (a) religion; (b) athletics?

Name	Age Sex
	THE SELF - OTHERS QUESTIONNAIRE
	ach item by writing one letter (A, B, C, D, or E) in the space. The meaning of these letters is:
	A. Rarely or almost never true for me B. Sometimes but infrequently true for me C. Occasionally true for me D. Very often true for me E. True for me all or most of the time
1.	My own decisions regarding problems I face do not turn out to be good ones. $ \\$
2.	\boldsymbol{I} find it easy to exert considerable influence over some of \boldsymbol{my} friends.
3.	When others make an error in my presence ${\rm I}$ am almost certain to point it out to them.
4.	When others fail to agree with me on some topic I know well, I am somewhat "taken back" by this.
5.	I find that I feel the need to make excuses or apologize for

If someone criticizes me to my face it makes me feel very low

I change my opinion (or the way I do things) in order to please

I find it hard to take a genuine interest in the activities

I regret my own past action I have taken when I find that my

I am critical of the dress, manner, or ideas of some of my

It worries me to think that some of my friends or acquain-

_13. I find it hard to accept some minority group members as equals.

14. I feel inferior as a person to some of my friends.

Some of my friends consistently do things of which I disapprove.

my behavior.

and worthless.

someone else.

friends.

of some of my friends.

tances may dislike me.

behavior has hurt someone else.

6.

7.

8.

9.

10.

11.

12.

15.	I have to be careful at parties and social gatherings for fear I will do or say things that others won't like.
16.	It bothers me because $\ensuremath{\mathrm{I}}$ cannot make up my mind soon enough or fast enough.
17.	I think that a large share of the world's ills are due to certain groups who are basically stubborn, dishonest, or inferio
18.	I feel that I have very little to contribute to the welfare of others. $\hfill {}^{\hfill}$
19.	When I am first getting to know a person, I try to size him (or her) up to see wherein I am better (or not as good) as this person.
20.	Students who get elected to honor societies are mostly grinds or people with the right sort of pull. $ \\$
21.	One cannot be too careful in his efforts not to hurt others because some people are just naturally hard to deal with.
22.	Becoming a close friend to another person always involves a risk and may turn out to the detriment of one of the persons.
23.	I feel that I might be a failure if I don't make certain changes in my behavior (or my life).
24.	It takes me several days or longer to get over a failure that I have experienced. $\ensuremath{\text{\footnotemap}}$
25.	On the whole, college students are not very mature socially or emotionally. $ \\$
26.	Some people whom I know become conceited or "hard to live with" when they experience some success or receive some honor.
27.	When meeting a person for the first time, I have trouble telling whether he (or she) likes (or dislikes) me.
28.	At least one of \ensuremath{my} friends depends upon \ensuremath{me} for advice and help with decisions he has to make.
29.	One cannot afford to give attention to the opinions of others when he is certain he is correct. $ \\$
30.	I become panicky when I think of something I have done wrong (or might do wrong in the future).
31.	Although people sometimes compliment me, I feel that I do not really deserve the compliment.
32.	I regard myself as different from $\boldsymbol{m}\boldsymbol{y}$ friends and acquaintances.

33.	One soon learns to expect very little of other people.
34.	I keep still, or tell "little white lies," in the company of my friends so as not to reveal to them that I am different (or think differently) from them.
35.	The "success" of most people whom I know stems primarily from the breaks they got.
36.	The success and social standing of others means little to me unless they can prove themselves to be loyal, personal friends.
37.	My feelings are easily hurt.
38.	As I think about my past there are some points about which I feel shame. $ \\$
39.	I think I would be happier if I didn't have certain limitations.
40.	${\bf I}$ am not concerned with the opinions of others as long as ${\bf I}$ am fairly certain ${\bf I}$ am headed toward my goals.
41.	\boldsymbol{I} doubt if my plans will turn out the way \boldsymbol{I} want them to.
42.	I think that I am too shy.
43.	In class, or in a group, I am unlikely to express my opinion because I fear that others may not think well of it (or of me).
44.	${\rm I}$ find it hard to sympathize with people whose misfortunes ${\rm I}$ believe are due mainly to their own shortcomings.
45.	People who fail to work hard toward the attainment of respectable goals can depend upon no help from me when they are in trouble.
46.	I criticize \ensuremath{myself} afterwards for acting silly or inappropriately in some situations.
47.	Strikers, extreme conservatives, or extreme radicals have only a nuisance value as far as ${\rm I}$ am concerned.
48.	Some people are always trying to get more than their share of the good things in life. $ \\$
49.	A small group of obnoxious people stir up most of the troubles which we read about in the papers. $$
50.	If I hear that someone expresses a poor opinion of me, I do my best the next time I see this person to impress him (or her) as favorably as I can.

VOLUNTEER FORM

This completes the first part of this study. There is a second part and your participation is needed. This part would take about one hour of your time and involve completing several scales and making judgments about others based on more information than you had in part one. If you do volunteer to be a subject in this part, you will be contacted by phone and an appointment time scheduled at your convenience.

	(F	
oca1	phone_	
		Yes, I will be a subject in the second part
		of this study.
		Signature
		No, I will not be a subject in the second part
		of this study.
		Signature

Name (please print)

INSTRUCTION SHEET -- PART TWO

The second part of this study is seeking information about how people make judgments about one another based on limited information. Please proceed through this packet of materials, completing each scale in the order in which they are presented. All questions will be answered when you have finished.

The first scale is an attitude scale. Please read the instructions and then answer each item.

INSTRUCTIONS FOR JUDGMENT ABOUT A FRIEND

The following attitude survey was completed by one of your classmates of your same age and sex. His/her name, of course, has been removed to assure his/her anonymity. Please study it carefully and then complete the Interpersonal Judgment Scale with the person who filled out the attitude scale as the object of your judgments. Try to base your judgments on how you would find this person if you were to meet him/her and get to know him/her.

Name		

INTERPERSONAL JUDGMENT SCALE (TF)

1. INTELLIGENCE ((check one)	
I believe that t	this person is	very much above average in intelligence
I believe that t	his person is	above average in intelligence.
I believe that t	his person is	slightly above average in intelligence.
I believe that t	this person is	average in intelligence.
I believe that t	this person is	slightly below average in intelligence.
_I believe that t	this person is	below average in intelligence.
I believe that t	this person is	very much below average in intelligence
2. KNOWLEDGE OF C	CURRENT EVENTS	(check one)
I believe that the knowledge of cur		very much below average in his (her)
I believe that to of current event		below average in his (her) knowledge
_I believe that to knowledge of cur		slightly below average in his (her)
I believe that t	this person is	average in his (her) knowledge of
I believe that t knowledge of cur		slightly above average in his (her)
I believe that t knowledge of cur		very much above average in his (her

3. MORALITY (Check one)
This person impresses me as being extremely moral.
This person impresses me as being moral.
This person impresses me as being moral to a slight degree.
This person impresses me as being neither particularly moral nor particularly immoral
This person impresses me as being immoral to a slight degree.
This person impresses me as being immoral.
This person impresses me as being extremely immoral.
4. ADJUSTMENT (check one)
I believe that this person is extremely maladjusted.
_I believe that this person is maladjusted.
_I believe that this person is maladjusted to a slight degree.
$_$ I believe that this person is neither particularly maladjusted nor particularly well adjusted.
_I believe that this person is well adjusted to a slight degree.
_I believe that this person is well adjusted.
I halieve that this person is extremely well adjusted

5.	PERSONAL FEELINGS (check one)
1	feel that I would probably like this person very much. ${\mbox{\tiny e}}$
_1	feel that I would probably like this person.
I	feel that I would probably like this person to a slight degree.
	feel that I would probably neither particularly like nor articularly dislike this person.
_1	feel that I would probably dislike this person to a slight degree $% \left(1\right) =\left(1\right) \left(1\right) $
1	feel that I would probably dislike this person.
_1	feel that I would probably dislike this person very much.
6.	SOCIAL ATTRACTIVENESS (check one)
_1	believe that this person is extremely socially attractive.
_1	believe that this person is socially attractive.
I	believe that this person is slightly socially attractive.
	believe that this person is not particularly socially attractive \boldsymbol{r} socially unattractive.
I	believe that this person is slightly socially unattractive.
I	believe that this person is socially unattractive.
т	holious aboa abis seems is subsequely socially seedanceding

7.	HAVING AS A THERAPIST (check one)
_1	would dislike very much having this person as a therapist.
I	would dislike having this person as a therapist.
I	would slightly dislike having this person as a therapist.
_I	would neither dislike nor like having this person as a therapist.
I	would slightly like to have this person as a therapist.
_1	would like having this person as a therapist.
_1	would like very much having this person as a therapist.

Name			

INTERPERSONAL JUDGMENT SCALE (FF)

1. IN	TELLI (GENCE	(chec	ck one)		
_I be	elieve	that	this	person	is	very much above average in intelligence
_I be	elieve	that	this	person	is	above average in intelligence.
_I be	elieve	that	this	person	is	slightly above average in intelligence
_I be	elieve	that	this	person	is	average in intelligence.
_I be	elieve	that	this	person	is	slightly below average in intelligence
_I be	elieve	that	this	person	is	below average in intelligence.
_I be	elieve	that	this	person	is	very much below average in intelligence
2. KN	NOWLED	GE OF	CURRI	ENT EVE	NTS	(check one)
				person t events		very much below average in his (her)
	elieve current			person	is	below average in his (her) knowledge
				person t events		slightly below average in his (her)
	elieve rent ev			person	is	average in his (her) knowledge of
				person t events		slightly above average in his (her)
				person events		very much above average in his (her)

3. MORALITY (check one)
This person impresses me as being extremely moral.
This person impresses me as being moral.
This person impresses me as being moral to a slight degree.
$\underline{\hspace{0.1cm}}$ This person impresses me as being neither particularly moral nor particularly immoral.
This person impresses me as being immoral to a slight degree.
This person impresses me as being immoral.
This person impresses me as being extremely immoral.
4. ADJUSTMENT (check one)
I believe that this person is extremely maladjusted.
$_{ m I}$ believe that this person is maladjusted.
$\underline{\hspace{0.1in}}$ I believe that this person is maladjusted to a slight degree.
$\underline{\hspace{0.1cm}}$ I believe that this person is neither particularly maladjusted nor particularly well adjusted.
$_{\rm I}$ believe that this person is well adjusted to a slight degree.
I believe that this person is well adjusted.
_I believe that this person is extremely well adjusted.

5.	PERSO	ONAL	FEE	LINGS	(check	one)												
I	feel	that	t I	would	probab1	y li	ke	thi	s p	ers	on	ver	y m	ıch.				
I	feel	that	i I	would	probab1	y li	ke	thi	s p	ers	on.							
I	fee1	that	I	would	probab1	y 1i	ke	thi	s p	ers	on	to	a s	ligh	nt d	legr	ee.	
					probabl this p			ner	par	tic	ula	rly	li)	ke r	nor			
I	fee1	tha	t I	would	probabl	y di	s1	ike	thi	s p	ers	on	to	a si	ligh	nt d	egr	ee
I	feel	tha	t I	would	probab1	y di	s1:	ike	thi	s p	ers	on.						
_1	feel	tha	ΙI	would	probab1	y di	s1:	ike	thi	s p	ers	on	ver	y mi	ıch.			
6.	SOCI	AL A	ΓTRA	CTIVE	NESS (ch	eck	on	e)										
I	beli	eve	that	this	person	is 6	xt:	reme	1y	soc	ial	1у	att	rac	tive	€.		
I	beli	eve :	that	this	person	is s	soc:	ial1	уа	ttr	act	ive						
I	beli	eve	that	this	person	is s	li;	ght1	y s	oci	a11	у а	ttr	act:	ive.			
					person	is 1	ot	par	tic	ula	ır1y	50	cia	11y	att	trac	tiv	e
_1	beli	eve ·	that	this	person	is s	li;	ght1	y s	oci	a11	y u	nat	tra	ctiv	ve.		
I	beli	eve	that	this	person	is s	soc:	ial1	y u	nat	tra	cti	ve.					
I	beli	eve	that	this	person	is e	xt	reme	1y	soc	ial	1y	una	ttr	acti	ive.		

/.	HAVING AS A FRIEND (CHeck One)
I	would dislike very much having this person as a friend.
I	would dislike having this person as a friend.
_1	would slightly dislike having this person as a friend.
_1	would neither dislike nor like having this person as a friend.
_1	would slightly like to have this person as a friend.
I	would like having this person as a friend.
I	would like very much having this person as a friend.

APPENDIX B

TABLE B1

One way ANOVA for the attraction items of the Judgment of a Friend in General Scale between the four experimental groups of experiment I (nonclient subjects)

Source	df	MS	<u>F</u>
SS _{AG} = 22.88	3	7.63	0.80
SS _E = 560.86	58	9.51	
SS _{TOT} = 583.75	61		

TABLE B2

One way ANOVA for attraction items of the Judgment of a Friend in General Scale between the four experimental groups of experiment II (client subjects)

Source	df	MS	<u>F</u>	
SS _{AG} = 6.95	3	2.31	0.22	
SS _E = 171.6	16	10.72		

TABLE B3

One way ANOVA for the attraction items of the Judgment of a

Therapist in General Scale between the four experimental groups of

experiment II (client subjects)

Source	df	MS	<u>F</u>
SS = 4.55	3	1,52	0.20
SS _E = 119.2	16	7.45	

SS = 123.75

TABLE B4

One way ANOVA for the attraction items of the Judgment of a Therapist in General Scale between the four experimental groups of experiment I (client subjects)

Source	df	MS	<u>F</u>	
SS = 18.95	3	6.32	0.47	
SS _E = 776.60	58	13.16		
SS _{TOT} = 795.55	61			

TABLE B5

One way ANOVA for scores on the self scale of the Self-Other Questionnaire between client subjects and nonclient subjects

Source	df	MS	<u>F</u>	
SS _{AG} = 1679.51	1	1679.51	8.20**	
SS _E = 16393.09	80	204.91		
SS _{TOT} = 18072.60	81			

TABLE B6

One way ANOVA for scores on the self scale of the Self-Other

Questionnaire between the four experimental groups

of experiment I (nonclient subjects)

Score	df	MS	<u>F</u>	
SS _{AG} = 12105.95	3	213.00	1.05	
SS _E = 64193.92	58	208.00		
SS = 76299.87	. 61			

^{**}p < ..01.

TABLE B7

One way ANOVA between the scores of the Self-Other Questionnaire for the four experimental groups of experiment II (client subjects)

Source	df	MS	<u>F</u>
SS = 348.40	3	116.00	0.56
$SS_E = 3296.81$	16	206.00	
SS _{TOT} = 3645.21	19		

REFERENCES

- Aronson, Elliott & Worchel, Philip. Similarity versus liking as determinants of interpersonal attractiveness, <u>Psychonomic</u> Science, 1955, 5, 157-158.
- Backman, Carl W. & Secord, Paul F. Effect of perceived liking on interpersonal attraction, <u>Human Relations</u>, 1959, <u>12</u>, 379-384.
- Bercheid, Ellen & Walster, Elaine Hatfield. <u>Interpersonal Attraction,</u>
 Addison-Wesley Publishing Co: Reading, Massachusetts, 1969.
- Berger, E. The relation between expressed acceptance of self in relation to expressed acceptance of others, <u>Journal of Abnormal</u> and <u>Social Psychology</u>, 1952, 47, 778-782.
- Brewer, Robert E. & Brewer, Marilynn B. Attraction and accuracy of perception in diads, Journal of Personality and Social Psychology, 1968, 8, 188-193.
- Broxton, June A. A test of interpersonal attraction predictions derived from balance theory, Journal of Abnormal and Social Psychology, 1966, 66, 394-397.
- Burdick, Harry A. & Burnes, Alan J. A test of strain toward symmetry theories, Journal of Abnormal and Social Psychology, 1958, 57, 367-370.
- Byrne, Donn. Interpersonal attraction and attitude similarity, <u>Journal of Abnormal and Social Psychology</u>, 1961, 62, 713-715.
- Byrne, Donn. Response to attitude similarity-dissimilarity as a function of affiliation need, <u>Journal of Personality</u>, 1962, 30, 164-177.
- Byrne, D. & Nelson, D. Attraction as a linear function of proportion of positive reinforcements, Journal of Personality and Social Psychology, 1965, 1, 659-663.

- Byrne, D., Nelson, D. & Reeves, K. Effects of consensual validation and invalidation on attraction as a function of verifiability, Journal of Experimental and Social Psychology, 1966, 2, 98-107.
- Byrne, Donn. Attitudes and attraction, in Berkowitz, Leonard (Ed),
 Advances in Experimental Social Psychology, Academic Press:
 New York, New York, 1969.
- Byrne, Donn, Baskett, Glen Dale & Hodges, Louis. Behavioral indicators of interpersonal attraction, <u>Journal of Applied Social Psychology</u>, 1971, 1, 137-149.
- Byrne, D., in collaboration with: Gouaux, C., Griffith, W., Lambreth, J., Murakawa, N., Prasad, A. & Ramirez III, M. The ubiquitous relationship: attitude similarity and attraction, <u>Human Relations</u>, 1971, 24, 201-207.
- Carson, Robert C. & Heine, Ralph W. Similarity and success in therapeutic diads, <u>Journal of Consulting Psychology</u>, 1962, <u>26</u>, 38-43.
- Carson, Robert C. & Llewellyn, Charles E., Jr. Similarity in therapeutic diads: a reevaluation, <u>Journal of Consulting Psychology</u>, 1966, 30, 548.
- Cartwright, Dorwin & Harary, Frank. Structural balance: a generalizations of Heider's theory, <u>Psychological Review</u>, 1956, <u>63</u>, 277-293.
- Clore, Gerald L. & Baldridge, Barbara. The behavior of item weights in attitude attraction research, <u>Journal of Experimental Social</u> <u>Psychology</u>, 1970, 6, 177-186.
- Cook, Thomas E. The influence of client-counselor value similarity on change in meaning during brief counseling, <u>Journal of Counseling Psychology</u>, 1966, 13, 77-81.
- Curry, Tymothy J. & Emerson, Richard M. Balance theory: a theory of interpersonal attraction, Sociometry, 1970, 33, 216-238.
- Darley, John M. & Berscheid, Ellen. Increased liking as a result of anticipated contact, Human Relations, 1967, 29, 29-39.
- Dutton, Donald G. & Arrowood, John A. Situational Factors in evaluation congruency and interpersonal attraction, <u>Journal of</u> <u>Personality</u> and Social Psychology, 1971, 18, 222-229.
- Edwards, Billy C. & Edgerly, John W. Effects of counselor-client cognitive congruence on counseling outcome in brief counseling, Journal of Counseling Psychology, 1970, 17, 313-318.
- Ettinger, Ronald F., Nowicki, Stephen, Jr. & Nelson, Don A. Interpersonal attraction and the approval motive, Journal of Experimental Research in Personality, 1970, 4, 95-99.

- Gassner, Suzanne Marie. Relationship between patient-therapist compatibility and treatment effectiveness, Journal of Consulting and Clinical Psychology, 1970, 16, 291-297.
- Goldstein, Arnold P. <u>Psychotherapeutic Attraction</u>, Pergamon Press: New York, New York, 1971.
- Gormly, Anne V. & Clore, Gerald L. Attraction, dogmatism, and attitude similarity-dissimilarity, Journal of Experimental Research in Personality, 1969, 4, 9-15.
- Griffitt, William B. Interpersonal attraction as a function of self-concept and personality similarity-dissimilarity, Journal of Personality and Social Psychology, 1966, 4, 581-584.
- Heider, J. The Psychology of Interpersonal Relations, Wiley: New York, New York, 1958.
- Jackson, Lee A. & Marcano, Guillermo F. Interpersonal attraction as a function of attitude similarity-dissimilarity and attitude extremity, Psychonomic Science, 1971, 23, 187-188.
- LaGaipa, John J. & Werner, Ron E. Effects of topic relevancy and attitude similarity on two measures of affiliation, <u>Psychonomic Science</u>, 1971, 24, 67-68.
- Libo, Lester M. The projective expression of patient-therapist attraction, Journal of Clinical Psychology, 1957, 13, 33-36.
- Lombardo, John P., Weiss, Frank Robert & Stich, Mark H. Interpersonal attraction as a function of amount of information supporting subject's opinion, <u>Psychonomic Science</u>, 1971, 24, 79-80.
- Mascaro, Guillermo G. Interpersonal attraction and uncertainty reduction as functions of judgmental similarity, <u>Perceptual and Motor Skills</u>, 1970a, 30, 71-75.
- Mascaro, Guillermo F. The effects of delayed judgmental similarity on evaluative attraction, Psychonomic Science, 1970b, 19, 229-230.
- Mehrabian, Albert & Ksionzky, Sheldon. Anticipated compatibility as a function of attitude status similarity, <u>Journal of Personality</u>, 1971, <u>39</u>, 225-241.
- Mendelsohn, Gerald A. Effects of client personality and clientcounselor similarity on the duration of counseling: a replication and extension, <u>Journal of Counseling Psychology</u>, 1966, <u>13</u>, 228-234.
- Mendelsohn, Gerald A. & Geller, Marvin H. Effects of counselorclient similarity on the outcome of counseling, <u>Journal of Counselor Psychology</u>, 1963, 10, 71-78.

- Mendelsohn, Gerald A. & Geller, Marvin H. Structure of client attitudes toward counseling and their relation to clientcounselor similarity, <u>Journal of Consulting Psychology</u>, 1965, 29, 63-72.
- Newcomb, Theodor M. An approach to the study of communicative acts, Psychological Review, 1953, 60, 393-404.
- Newcomb, Theodor M. The Acquaintance Process, Holt, Rinehart and Winston: New York, New York, 1961.
- Novac, David W. & Lerner, Melvin J. Rejection as a consequence of perceived similarity, <u>Journal of Personality and Social Psychology</u>, 1968, 9, 147-152.
- Patton, Michael J. Attraction, discrepancy, and responses to psychological treatment, <u>Journal of Counseling Psychology</u>, 1969, <u>16</u>, 317-324.
- Sachs, Donald H. & Byrne, Donn. Differential conditioning of evaluative responses to neutral stimuli through association with attitude statements, <u>Journal of Experimental Research in Personality</u>, 1970, 4, 181-185.
- Sapolsky, Allen. Effect of interpersonal relationships on verbal conditioning, <u>Journal of Abnormal and Social Psychology</u>, 1960, 60, 241-246.
- Sapolsky, Allen. Relationship between patient-doctor compatibility, mutual perception, and outcome of treatment, <u>Journal of Abnormal</u> <u>Psychology</u>, 1965, 70, 70-76.
- Shaw, Marvin E. & Wright, Jack M. Scales for the Measurement of Attitudes, McGraw-Hill Publishing Co.: New York, New York, 1967.
- Stalling, Richard B. Personality similarity and evaluative meaning as conditioners of attraction, <u>Journal of Personality and Social</u> <u>Psychology</u>, 1970, 14, 77-82.
- Welkowitz, Jacob Cohan & Ortmeyer, Dale. Value system similarity: investigation of patient-therapist diads, <u>Journal of Consulting</u> <u>Psychology</u>, 1967, 31, 48-35.
- Weimer, Daniel J. Failure of personality variables to mediate interpersonal attraction, <u>Psychological Reports</u>, 1970, <u>26</u>, 784-786.

BIOGRAPHICAL SKETCH

Ralph Bert Hammond was born November 10, 1943, at Antioch,
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the present.

Ralph Bert Hammond is married to the former Teresa Lee Adcock. He is the father of two daughters.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Joe Wittmer, Chairman
Associate Professor of
Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

James L. Lister

Professor of Counselor Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

Fullman F. Mascaro

Assistant Professor of Psychology

This dissertation was submitted to the Dean of the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

March, 1972

Dean, College of Education

Dean, Graduate School